



GOVERNMENT OF ODISHA  
OFFICE OF THE CHIEF ENGINEER-CUM - CHIEF ELECTRICAL INSPECTOR,  
NORTH EASTERN ZONE ODISHA, BALASORE-756001  
AT-I.G.MARG, BALASORE-1, NEAR I.T.I. SQUARE  
Email Id: ceinzblsr-od@gov.in

No.....451..... / Dated ...04-12-2017

From  
The C.E-Cum-CEI, North Eastern Zone, Odisha,  
Balasore.

To  
M/s.Ardent Steel Ltd.,  
At/PO- Phuljhari, Via- Suakati  
Dist. - Keonjhar.

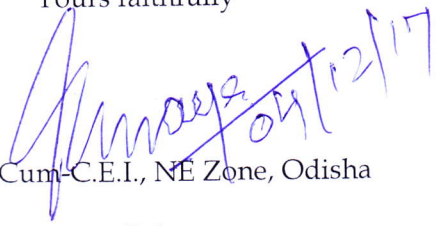
Sub: - Annual Inspection Report of Electrical Installation of M/s Ardent Steel Ltd., for the year 2017-18.

Sir,

Please find enclosed herewith a copy of the Annual Inspection Report for your information and necessary action.

Yours faithfully

Enclosed:As above

  
C. E-Cum-C.E.I., NE Zone, Odisha  
Balasore

Memo No. \_\_\_\_\_ Dtd. \_\_\_\_\_

Copy along with a copy of the inspection report forwarded to the S.E-Cum-E.I., Keonjhar for information.

Enclosed:Asabove

  
C. E-Cum-C.E.I., NE Zone, Odisha

ANNUAL INSPECTION REPORT OF ELECTRICAL INSTALLATION OF M/S ARDENT STEEL LTD., KEONJHAR  
FOR THE YEAR 2017-18.

1.	Report No.	:	28 / 2017-18
2.	Date of inspection.	:	25-10-2017 and 10-11-2017
3.	i. Inspection fees Due, ii. Inspection fees paid  iii. Total Inspection fee Paid iv. Balance to be paid	:	Rs. 158975.00 (Copy enclosed) Rs. 101950.00 vide e.T.C. No. 27B4311287 / 26-05-2017 Rs. 21725.00 vide e.T.C. No. 27B41297B8/24-05-2017 Rs. 123675.00 <b>Rs. 35300.00</b>
	Voltage and system of supply.	:	33 KV, 11KV, 415V,110V,3-Ph,50 Hz
5.	Name and address of the owner.	:	M/s. Ardent Steel Ltd., At/PO- Phuljhar Dist. – Keonjhar
6.	Location of the installation	:	Inside factory premises of M/s. Ardent Steel Ltd., At/Po- Phuljhar, Keonjhar
7.	Persons present.	:	1. Mr. S. Ramesh.DGM(Electrical), Mob-8280826802. 2. Mr. Narsingh Sahoo, Manager, Corporate Communication Mob-9437076532
8.	Inspection conducted by.  And assisted by.	:	1. Er. Satyajit Nayak, C.E.-Cum-CEI, NEZ, Odisha, Balasore 2. Er. Gananath Das, AEE-Cum-AEI. 3. Er. Jagabandhu Prusty, AEE-Cum-AEI
9.	Details of the works Inspected	:	As per List enclosed

10. Energy Meter Details:

Name of the Equipment	Meter Make	Meter Sl. No.	Meter CTR	Meter PTR	Adopted CTR	Adopted PTR	MC	Class	MF	Reading
DG-1 (2250KVA)	HPL	1K082818	-/5A	3 X 240V	4000/5	3 X 240V	1	1.0	800	16340.7
DG-2 (2250KVA)	HPL	1K082786	-/5A	3 X 240V	4000/5	3 X 240V	1	1.0	800	17207.1
DG-3 (2250KVA)	Dismantling permission granted on 25-10-2017 at site and vide T.O. Ltr No.-331 Dated 16-10-2017									Last reading 77852.90
DG-4 (2250KVA)	HPL	1M001414	-/5A	3 X 240V	4000/5	3 X 240V	1	1.0	800	00644.4

*(Signature)*  
04/12/17  
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Balasore

## 11. Seal Details :-

Sl no.	Seal Nos.	Type	Location	Remark
DG-1 (2250KVA)	0001177/0001178	Plastic	Meter Box and CT Box	
DG-2 (2250KVA)	0001176/0001300	Plastic	Meter Box and CT Box	
DG-3 (2250KVA)	0037202/0037203/0037204/0037205	Plastic	Meter Box and CT Box	Broken as permission granted for dismantling
DG-4 (2250KVA)	0013963/0013964	Plastic	Meter Box and CT Box	

## 12. OBSERVATIONS:-

### DEFECTS AND DEFICIENCIES NOTICED AND RECTIFICATION ADVISED:-

#### A. DG Room:-

1. Extraneous materials are to be removed.
2. Suitable insulated mats are to be laid on in front of the panels.
3. Fire extinguishers of suitable type and capacity should be duly filled and kept in readiness conspicuously in the DG floor and are to be certified with signature of authority and designated Safety officer / Electrical Safety Engineer.
4. Safety equipments like Discharge rod, Safety lamp, hand gloves, testers etc. should be kept in the Control room.
5. Cable tag markers to be provided to all incoming & out going cables.
6. Danger board confirming to IS to be provided.
7. Proper illumination are to be provided in both DG rooms.

#### B. 33 KV Switchyard :-

1. Painting of M.S. Channel and all rusted parts should be done during shutdown.
2. Earth pit are to be identified for periodical checking and earth resistance to be measured and mentioned on the earth pits with due date of measurement.
3. Measurement of earth resistance to be done twice a year.
4. AB switch handle is to be earthed.

#### B. Control Room and Switchgear Room :-

1. Identification of control room building is to be made properly with voltage level in large font.
2. Nomenclature of all Panels to be done in Bold letters.
3. The fire extinguishers are to be duly filled and certified by competent authority/ Safety Officer / Designated Electrical Safety Officer regarding its validity.
4. All the emergency phone numbers as well as contact numbers of all in charge officers are to be displayed in their control room.
5. All persons / work men engaged in electrical work including supervisors are required to have valid license from ELBO.
6. First-aid box should be updated with proper medicine.
7. Earthing of all the panels are to be ensured.
8. Rubber mat are to be replaced in front of all the panels.



9. SLD of each area shall be displayed in the corresponding control rooms.

**C. MOTORS:-**

- 1) All the motors in different areas are to be identified as per the function and voltage level.
- 2) Local control switches of the motors are to be identified in accordance to the corresponding motors.
- 3) Maintenance record of the motors shall be maintained for reference.
- 4) Guarding to be provided for rotating parts of the motors.
- 5) Direction of rotation of motor is to be marked on the motors.
- 6) Rubber mats are to be placed in front of local Control Panels of motors.
- 7) Earth Connection of all the motors are to be ensured from two separate earth connections.
- 8) Vegetation near electrical system should be cleaned.
- 9) All motors are to be dust free time to time.

**General :-**

1. Panels are to be double earthed from two independent earth sources.
2. Cables are to be laid in cable tray and dressed properly with cable tag. Underground Cables are to be marked with cable tag along its route.
3. Danger Boards in English, Hindi & Odia shall be fixed on equipments as per I.S. Standard.
4. Shock treatment chart shall be displayed in the control room.
5. The fire extinguishers are to be dully filled and certified by competent authority regarding its validity.
6. All Earth pits are to be identified and properly numbered for periodical checking at least twice in a year. Earth resistance are to be measured and noted at/ on each earth pit with date of measurement.
7. Illumination should be improved in the premises area of the factory.
8. All persons engaged in electrical work including supervisors are required to have valid license from ELBO.
9. All Electrical Panels, motors, Transformer and other Electrical installation are to be made dust free.
10. List of person engaged in electrical work are to be displayed in the following format and submitted to this office.

Sl.No.	Name of the authorised person	Designation	Certificate permit obtained from ELBO.	Validity	purpose of authorisation	Signature of authorised person	Signature of officer who authorised the person
1	2	3	4	5	6	7	8


11. Register of tests and checks made on system insulation, earth resistances and various technical parameters of the equipments, switchgears and protection system should be maintained duly certified by the Designated Engineer and Electrical Safety Officer during each shutdown and Produced to this Office for record.
12. An Officer with requisite qualification, experience and competency certificate as required under CEA Safety regulation 2010 needs to be designated as Safety Officer(Electrical ) to look after for specific period to look after the safety aspects of all electrical works of the plant.
13. All addition, alteration and maintenance in the works are to be carried out through valid licensed electrical contractor/contractors of proper category under the supervision of valid and proper category of licensed Electrical Supervisor.

*Manoj Kumar*  
04/12/17  
C.E. Um G.E.I.  
3rd Eastern Zone Odisha  
Balasore

14. The details of the Designated Electrical Safety Officer and the Electrical Contractors should be furnished to this office within 30 Days of the issue of this letter.
15. A Certificate to the effect of checking the electrical works to be safe and carried out through the engaged Electrical Contractor is to be furnished to this office duly signed by the Designated Safety Officer, Electrical Contractor and the Supervisor.
16. The Equipment which have not been inspected in this report is to be intimated to the undersigned for further inspection.
17. Addition and alteration of any Electrical Installation is to be intimated before energisation. Energisation of any electrical installation without statutory inspection attracts penalty equivalent to five times of initial inspection fees in addition to it.
18. Balance inspection fees as mentioned in this report is to be deposited.

**CONCLUSION:-**

- A. The Electrical Installation which are in energised condition are permitted to remain energised subjected to rectification of observations pointed in the report within 30 (Thirty Days) of issue of this report, failing which this report will be invalid and power supply to this Electrical Installation will be disconnected.
- B. The items under Head E has been permitted to dismantle vide Ltr No. 331 Dated 16-10-2017 and instruction issued on the spot at the time of Annual Inspection as per the request of M/s. Ardent Steel Ltd.

  
C. E-Cum-C.E.I., NE Zone, Odisha

Balasore

**List of Equipments of M/s. Ardent Steel Ltd. For Annual Inspection For the Year 2017-18**

<b>A ESP Installations</b>				
Sl. No.	Equipments	Qty.	Inspection fee Rate in(Rs.)	Amount
1	ESP Transformer	3	9000	27000
2	ESP MCC Panel	1	750	750
3	900 KW Motor	1	850	850
4	LT Cable	1 km	125	125
<b>TOTAL (A)</b>				<b>28,725</b>
<b>B HT/ MV Installations</b>				
Sl. No.	Equipments	Qty.	Inspection fee Rate in(Rs.)	Amount
1	33/0.433 KV, 5.8 MVA Transformer	2	2250	4500
2	33/11 KV, 7.5 MVA Transformer	1	2250	2250
3	11/.415 KV, 2.85 MVA Transformer	1	1700	1700
4	HT Panel	9	500	4500
5	LT Panel	51	500	25500
6	Upto 10 KW LT Motor	162	50	8100
7	10 to 100 KW LT Motor	75	200	15000
8	100 to 500 KW Motor	11	400	4400
9	500 to 1000 KW Motor	1	900	900
10	1000 to 5000 KW HT Motor	2	2400	4800
11	HT Cable	1 km	250	250
12	LT Cable	25 km	125+50/km	1325
<b>Total (B)</b>				<b>73225</b>
<b>C Initial Inspection Of Equipments</b>				
Sl. No.	Equipments	Qty.	Inspection fee Rate in(Rs.)	Amount
1	33 KV LA	1	500	500
2	Breaker	19	250	4750
3	CT	24	250	6000
4	PT	6	250	1500
5	Dynamic Capacitor Bank(750KVAR)	4	850	3400
6	Servo Voltage Stabilizer	3	500	1500
7	Air Condition Control Panel	1	500	500
8	Load cell Panel	1	500	500
9	UPS 10 KVA	2	500	1000
10	UPS Junction Box	1	500	500
11	Battery Set	2	500	1000
<b>TOTAL (C)</b>				<b>21,150</b>
<b>Initial Inspection Fee( Total C x 1.5 )</b>				<b>31,725</b>



<b>D</b>				
<b>Equipment list of DG-1,2 &amp; 4 Sets of M/s. Ardent Steel Ltd. for the year 2017-18</b>				
Sl. No.	Description	Quantity	Inspection Fee rate(Rs.)	Amount
1	DG,2250KVA,415 V	3	2750	8250
3	Metering Panel	3	400	1200
4	C/R Panels	9	400	3600
6	Battery	4	250	1000
7	CT	9	250	2250
9	Breaker	4	250	1000
10	Fuel Oil pump 30KW	2	200	400
11	Compressor 45 KW	1	200	200
12	water suck pump 1.1kw	1	50	50
13	Light load 400W	3	50	150
14	LT Cable	4	125	500
15	HT Cable	1	250	250
<b>Total Annual Inspection fees for 2017-18</b>				<b>18850</b>

<b>E</b>				
<b>Inspected DG-3 and its associated Equipments</b>				
Sl. No.	Description	Quantity	Inspection Fee rate(Rs.)	Amount
1	DG,2250KVA,11 V	1	2750	2750
2	NGR Panel	1	500	500
3	Metering Panel	1	400	400
4	C/R Panels	2	400	800
5	Breaker	1	250	250
6	Battery	1	250	250
7	CT	3	250	750
8	PT	3	250	750
<b>Total (E)</b>				<b>6450</b>

<b>BILL ABSTRACT</b>			
<b>TOTAL (A+B+C+D+E) =</b>			<b>158,975</b>
<b>Annual Demand Bill for the year 2017-18 =</b>			<b>158,975</b>
<b>Inspection fee paid</b>			<b>123675</b>
<b>Inspection Fees to be paid</b>			<b>35,300</b>

*Ananya*  
09/12/17  
C.E. Cum C.E.I.  
North Eastern Zone Odisha  
Balasore