

By Registered Air Mail



S-29020/62/181(3)/FTP/2013/EHQ
भारत सरकार/Government of India
श्रम एवं रोजगार मंत्रालय
Ministry of Labour & Employment
खान सुरक्षा महानिदेशालय/
Directorate General of Mines Safety



No. 530/2296

/EHQ, dated the 01-12-- 2016

From:
Director General of Mines Safety
Directorate General of Mines Safety,
P.O & Distt: Dhanbad - 826 016,
Jharkhand (India).

To
Shri Wolfgang Reisser - Director
M/s. Caterpillar Global Mining Europe GmbH,
Industriestrasse 1, 44534 Lünen ,
Germany.

Sub:- DGMS approval under Regulation 181(3) of the Coal Mines Regulations, 1957 for Flameproof and Intrinsically safe electrical equipment associated with longwall package (as mentioned in Annexure-B) manufactured by M/s. Caterpillar Global Mining Europe GmbH, Germany for use in Adriyala Project of M/s. SCCL.

IDENTIFICATION MARK
DGMS APPROVAL No. ...71.9...of 2016

Dear Sir,

Based on the performance report of the Director (E&M), M/s. Singareni Collieries Co. Ltd., Khammam (A.P.) and test reports of the various flameproof and Intrinsically Safe Electrical equipment to be associated with Longwall Package (as mentioned in Annexure-B), I hereby accord approval for the same for a period of **five (05) years from the date of issue of this letter** for use in Adriyala Project of M/s. Singareni Collieries Co. Ltd., subject to compliance with conditions stipulated in Annexure-A.

The application for renewal should be made at least **three (03) months** before the date of expiry of the approval.

Yours faithfully,

(Rahul Guha)

Director General of Mines Safety

Encl : Annexures - A&B.

DGMS approval No. 718 of 2016 issued by Directorate's letter No. 530/2296/EHQ dated 01-12-2016

Conditions for DGMS approval under Regulation 181(3) of the Coal Mines Regulations, 1957 for Flameproof and Intrinsically safe electrical equipment to be associated with longwall package (as mentioned in Annexure-B) manufactured by M/s. Caterpillar Global Mining Europe GmbH, Germany for use in belowground Coal Mines.

1. The Longwall Package shall carry conspicuously in a permanent manner the aforesaid identification mark, i.e. "DGMS APPROVAL NO. 718 OF 2016 approved by Directorate's letter No. 530/2296/EHQ dated 01-12-2016" as below:



2. This approval is site and user specific for use at Adriyala Project of M/s. Singareni Collieries Co. Ltd.
3. The relevant provisions of the Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010 shall be complied in all matters relating to the installation, operation and maintenance of the equipment.
4. All covers, doors/access covers of the electrical equipment mounted on the equipment, on opening/removal which may expose live internal conductors, shall have warning instructions either by raised lettering or by other suitable means against such opening/removal of covers, doors and access covers, without isolating supply of energy to the equipment from its source.
5. Any replacement of parts required for maintenance of the equipment which is directly or indirectly connected to the flameproof features thereof, shall be supplied by the manufacturer as and when required.
6. The plug and socket assembly affixed to the equipment will be so interlocked as to prevent withdraw of plug from the socket while alive.
7. The electrical equipment associated with the machine shall be checked by Electrical Supervisor of the mine for their flameproofness. The condition of cables in the machine shall be checked at the beginning of each working shift and the findings thereof entered in a bound-paged book maintained for that purpose, which shall be duly signed by the Electrical Supervisor with the date.
8. While using radio remote control to operate the shearer, and if the portable control unit is taken out of transmitting range, power should be automatically cut off from the shearer.
9. All sensing devices shall be regularly tested and, routinely calibrated or verified to ensure correct operation and a record of the same shall be maintained.
10. The user shall furnish the performance report of the equipment directly to this Directorate after one (01) year of actual use.

Contd... P-2

K. Prasad
20/12/2016


11. (a) The customer shall be supplied the copy of this approval letter, the test report from the testing laboratory with the lab certified drawing , an extract of the condition & special conditions, maintenance schedule, if any, recommended by the testing laboratory in their test report(s) so as to maintain safety features of apparatus/equipment.

(b) The customer shall also be provided a copy of factory test report along with drawings, instruction manual on the installation, operation and maintenance of the equipment and spares parts catalogue at the time of delivery of the equipment.
12. The electrical and mechanical personnel who may be entrusted with the responsibility for the use, maintenance and operation of the machine shall be given adequate training for so much of the work may be enjoined on them.
13. The users in consultation with the manufacturer, shall frame a code of practice to provide the guidance to persons employed for installation, operation and maintenance of every equipment associated with Longwall Package, as well as to provide safety, health, convenience and discipline of persons so employed.
14. Reliability monitoring (condition monitoring) of the Longwall equipment shall be carried out by the user with guidance from the manufactures to increase the operational safety of the personnel.
15. A credible Risk Assessment report which effectively identifies, assesses and controls hazards relating to the safety of persons associated with the operation, maintenance and testing of the equipment.
16. Automatic prestart warning devices shall operate prior to the movement of the shearer, AFC, BSL, etc.
17. An automatic control system to prevent hitting the raised sections of the pan line at face ends or other obstructions by the lump breaker fitted with shearer shall be provided.
18. All the operating controls shall be clearly marked and ergonomically designed conforming to any International Standards.
19. Periodical testing of be brakes of shearer shall be conducted by a competent person as per the manufacturer's guidelines and the same shall be recorded in a separate bound paged book or soft copy. The shearer shall come to a controlled stop whilst travelling at maximum speed down the maximum allowed operating gradient.
20. A suitable fire fighting system shall be arranged near to the equipment.
21. The automatic shut down of the shearer drum rotation if the water pressure or flow rate drops below the minimum recommended value shall be maintained.
22. All electrical and mechanical safety critical components that are essential to the operation of the automatic shutdown system or emergency stop system shall be replaced or overhauled at intervals recommended by the manufacturer and a record of the same shall be maintained.
23. The temperature and humidity of surrounding air at the equipment installed location shall be maintained as per the recommendations of the manufacturer, by providing suitable ventilation.

Contd... P-3

Handwritten signature and date: 2/1/2010

24. Test certificates as per latest standards for Temperature Sensor and Morley shall be submitted to this office within a period of three months from the date of issue of this approval.
25. The automatic emulsion mixing system and its recording system shall be meticulously maintained at pump station. The Safe Operating Procedures for working / interacting with high pressures shall be framed and followed.
26. Any modification on the equipment shall not be carried out without prior approval of this Directorate.
27. The supplier shall provide technical assistance and shall also maintain close contact with the users to get themselves fully apprised of any difficulty that may be faced by the user with regard to the use, maintenance and operation of the equipment.
28. All fire resistant high pressure hydraulic hoses and fire resistant hydraulic fluid used in the equipment shall comply with the general order No. DGMS/Mech/Tech. Cir (Approval) No. 04, Dhanbad, dated 13.02.2015 and general order No. DGMS/Mech/Tech.Cir (Approval) No. 02, Dhanbad, dated 13.02.2015.
29. The cables connecting with Equipment shall conform to the provisions of the DGMS Tech. Circular (Electrical) No. 12 dated 25.05.2015 and corrigendum vide DGMS Tech. Circular (Electrical) Approval No. 01 dated 19.02.2016 in addition to the special requirement, if any, specifically for safe operation of the equipment.
30. The Audio Visual Alarm used in the machinery shall conform to the standards and parameters as prescribed in the DGMS Tech. Circular (Electrical), Approval No. 21 dated 05.10.2015.
31. If there occurs any revision of standards applicable to the product/equipment, the manufacturer shall get the product/equipment tested as per revised standards and submit test reports to the customer for information and to this Directorate for further approval/renewal.
32. While seeking renewal of approval, valid BIS license in the case of Indian manufacturers and in case of foreign manufacturers QAR/QAN for the associated flameproof / weatherproof / intrinsically safe apparatus, as may be applicable, shall be submitted.
33. The approval is accorded for a period of **five (05) years from the date of issue of this letter.**
34. At the time of applying for renewal, details of supply with name of mines, purchase order and date shall be furnished with the application.
35. If at any time any of the conditions subject to which this approval has been granted, are violated or not complied with, this approval shall be deemed to have been revoked with immediate effect.
36. The above approval may be amended or withdrawn at any time, if considered so necessary in the interest of safety and is being issued without prejudice to any other provisions of law which may be or may become applicable at any time.


(Rahul Guha)
Director General of Mines Safety

K. L. Guha
10/1/2016

Annexure-B

List of Flameproof and Intrinsically safe electrical equipment associated with longwall package manufactured by M/s. Caterpillar Global Mining Europe GmbH, Germany for use in Adriyala Project of M/s. SCCL under Regulation 181(3) of the Coal Mines Regulations, 1957 issued by Directorate's letter no...../EHQ, dated.....

530/2296

01-12-2016

S. No.	Item Description	Manufac Turer	Model	Test Certificate No.	Standards to which test is conducted
1	Socket/Adapter, Part of Half Coupler	Victor	CCBX1A	ERTL(E)/TES/V051/0079 /11-11	IS/IEC 60079-0:2004, IS/IEC 60079-1:2007
	Plug, Part of Half Coupler	Victor	CCBX1A	ERTL(E)/TES/V051/0079 /11-11	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007
2	Flameproof Socket	Victor	A43SB	CIMFR/TC/C/H351	IS/IEC 60079-0:2004, IS/IEC 60079-1:2007 & IS/IEC 60529:2001
	Flameproof Plug	Victor	A43PB	CIMFR/TC/C/H154	IS/IEC 60079-0:2004, IS/IEC 60079-1:2007 & IS/IEC 60529:2001
	Flameproof Coupler	Victor	A43SCB	CIMFR/TC/C/H332	IS/IEC 60079-0:2004, IS/IEC 60079-1:2007 & IS/IEC 60529:2001
3	Flameproof Socket	Victor	A42SR	CIMFR/TC/P/H475	IS/IEC 60079-0:2004, IS/IEC 60079-1:2007 & IS/IEC 60529:2001
	Flameproof Plug	Victor	A42PR	CIMFR/TC/P/H475	IS/IEC 60079-0:2004, IS/IEC 60079-1:2007 & IS/IEC 60529:2001
	Restrained Coupler	Victor	A42SCR	CIMFR/TC/P/H475	IS/IEC 60079-0:2004, IS/IEC 60079-1:2007 & IS/IEC 60529:2001
4	FLP VCB/Tx. HV Compartment	Baldwin & Francis	FLP VCB 500/11/T HVC Mk.2	ERTL(E)/TES/B252/0001 /10-12	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007
5	Transformer Enclosure	Baldwin & Francis	4.5 MVA	GB/SIR/ExTr13.350/00 IECEX SIR 13.0145X	IS/IEC 60079-0:2011 IS/IEC 60079-1:2007
6	High Powered Load Centre (TMD/TLVC)	Baldwin & Francis	TMD11-5	CIMFR/TC/P/H127	IS/IEC 60079-0:2004, IS/IEC 60079-1:2007
7	Flame Proof Transformer	Baldwin & Francis	1.5 MVA transformer	IECEX CML 15.0016X GB/CML/ExTR15.0029/00	IS/IEC 60079-0:2011, IS/IEC 60079-1:2014-06
8	Air Filled Adapter	Victor	AFA33A	CIMFR/TC/C/H328	IS/IEC 60079-0:2004, IS/IEC 60079-1:2007 & IS/IEC 60529:2001

Handwritten signature and date: 29/11/2016

S. No	Item Description	Manufac Turer	Model	Test Certificate No.	Standards to w test is conducted
9	Flame Proof Half Coupler	Victor	33MK2A	CIMFR/TC/C/H356	IS/IEC 60079-0:2004, IS/IEC 60079-1:2007 & IS/IEC 60529:2001
10	VSD-Variable Speed Drive	Baldwin & Francis	VSD Mk2	ERTL(E)/TES/B252/0022/ 01-13	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007
11	BAFLO-Closed Loop Water Cooler	Baldwin & Francis	BAFLO	ERTL(E)/TES/B252/0023/ 01-13	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007
12	8 Channel Interface	Baldwin & Francis	Type BB8-8758	ERTL(E)/TES/B252/0049/ 05-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
13	Two Channel Diode Proved Interface	Baldwin & Francis	Type BB2-4016	ERTL(E)/TES/B252/0048/ 05-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
14	Two Channel Relay Interface	Baldwin & Francis	Type BB2-4216	ERTL(E)/TES/B252/0047/ 05-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
15	Haulage Transformer Box	Caterpillar	HTB3	ERTL(E)/TES/B318/0097/ 11-11	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007
16	Electrical Control Box	Caterpillar	ECB3	ERTL(E)/TES/B318/0096/ 11-11	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007
17	Ethernet Switch	Caterpillar	is *SWITCH *T-*SM*	ERTL(E)/TES/B318/0009/ 12-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
18	FLP/WP LOMT Machine Mounted Transceiver	Pempek	LOMT	CIMFR/TC/P/H478	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007
19	LJH Display Enclosure	Caterpillar	H3055-3	CIMFR/TC/P/H416	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007
20	Backplane and Cios Modules	Caterpillar	CIOS	ERTL(E)/TES/B318/0005/ 12-12, ERTL(E)/ TES/B318/0006/12-12 ERTL(E)/TES/B318/0007/ 12-12, ERTL(E) /TES/B318/0008/12-12 ERTL(E)/TES/B318/0004/ 12-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
21	Barrier	Caterpillar	USB Barrier IS	ERTL(E)/TES/B318/0012/ 12-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
22	I.S. Keypad	Caterpillar	IS Keypad	ERTL(E)/TES/B318/0013/ 12-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
23	FLP-WP Encoder Enclosure	Scancon	EXMEL-A-VA-01-6X-00-FZ-C-00	CIMFR/TC/P/H589	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007
24	Flameproof Led Headlight	Victor	ML100	CIMFR/TC/P/H552	IS/IEC 60079-0:2004, IS/IEC 60079-1:2007 & IS/IEC 60529:2001
25	Reed Rod	Taciak AG	Model WMG	ERTL(E)/TES/C255/0071/ 07-13	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
26	Sensor Interface IS Pot UI	Caterpillar	IS POT UI Interface	ERTL(E)/TES/B318/0010/ 12-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006

S. No	Item Description	Manufac Turer	Model	Test Certificate No.	Standards to which test is conducted
27	Audible PSW	Hosiden Besson Ltd	IS28Mk5	CIMFR/TC/P/H683	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
28	Water Pressure / Flow Sensor	Kirchgaesser	MID-Ex	CIMFR/TC/P/H789	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
	Flow Transducer	Kirchgaesser	MID-Ex	CIMFR/TC/P/H789	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
29	I.S. Level Sensor	Gill	1702	CIMFR/TC/P/H510	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
30	Sensor Interface IS DMS UI Interface	Caterpillar	IS DMS UI Interface	ERTL(E)/TES/B318/0011/12-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
31	Solenoid	Hydac	EX-1196-600, EX-1195-700	CIMFR/TC/P/H415	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
32	3PH. FLP Water Cooled Induction Motor (860 kW)	ATB Morley	EL44F	ERTL(E)/TES/B318/0080/08-11	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007
33	3PH. FLP Water Cooled Induction Motor (Haulage)	ATB Morley	EL55F	ERTL(E)/TES/B318/0078/08-11	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007
34	3PH. FLP Water Cooled Induction Motor (Lump Breaker)	ATB Morley	EL72A	ERTL(E)/TES/B318/0081/08-11	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007
35	3PH. FLP Water Cooled Induction Motor (Pump)	ATB Morley	EL63B	ERTL(E)/TES/B318/0079/08-11	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007
36	IS Power Supply	SER	PSU 12.8.2	ERTL(E)/TES/C255/0087/07-13	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
37	Radio Remote	Pempek	LOSL	ERTL(E)/TES/P306/0025/07-13	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
38	Infrared Transmitter	Caterpillar	IRT2	ERTL(E)/TES/C255/0024/04-15	IS/IEC 60079-0:2004, IS/IEC 60079-11:2006
39	Roof Support Control Unit	Caterpillar	PMC-R/2	ERTL(E)/TES/B318/0011/02-13	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
40	Solenoid Driver	Caterpillar	PMC - SD2 Replaces SD1	ERTL(E)/TES/C255/0032/02-15	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
41	Pressure Sensor	Caterpillar	IPS - 600	ERTL(E)/TES/C255/0001/09-14	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
42	Double Electromagnet	Caterpillar	DMA3-1	ERTL(E)/TES/C255/0003/09-14	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
43	Dual I.S. Supply and enclosure	Caterpillar	PSU 12.2.2/DP U 230-12-2,0-***	ERTL(E)/TES/B318/0031/11-12 ERTL(E)/TES/B318/0031/06-13	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
44	Coupler	Caterpillar	PMC ii BiDi	ERTL(E)/TES/C255/0002/09-14	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006

S. No	Item Description	Manufac Turer	Model	Test Certificate No.	Standards to whi test is conducted
45	Long Distance Coupler	Caterpillar	PMC-LD485A/B	ERTL(E)/TES/C255/0020/11-14	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
46	Distribution Box	Caterpillar	PMC/V1	ERTL(E)/TES/C255/0021/11-14	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
47	Warning Light	Caterpillar	WL2	ERTL(E)/TES/C255/0019/11-14	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
48	IR Receiver - Transmitter	Caterpillar	IRE/SO3	ERTL(E)/TES/C255/0010/01-15	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
49	Identification Module	Caterpillar	PMC - Data stick	ERTL(E)/TES/C255/0012/01-15	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
50	Coding Plug	Caterpillar	Intelligent Code Plug	ERTL(E)/TES/C255/0013/01-15	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
51	Key Amplifier	Davis Derby	26824	ERTL(E)/TES/D200/0005/04-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
52	Signalling Key (Stage Loader/Face)	Davis Derby	26825 & 26831	ERTL(E)/TES/D200/0040/04-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
	Signalling Key/ PC21 roadway pull key	Davis Derby	26825 & 26831	ERTL(E)/TES/D200/0040/04-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
53	Pre Start Warning Generator	Davis Derby	26822	ERTL(E)/TES/D200/0006/04-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
54	Transducer Monitor	Davis Derby	26871	ERTL(E)/TES/D200/0009/04-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
55	Flameproof Multi-Use Enclosure	EMIS/ Coaltech	CT85	ERTL(E)/TES/C255/0067/07-15	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007
56	Electronic Flow meter	Conflow	5050A	ERTL(E)/TES/C237/0009/10-14	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
57	Solenoid	Voith/Val vex	V-i-EN/J	CIMFR/TC/P/H612	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
58	Proximity detector unit (slip/sequence)	Davis Derby	26324	ERTL(E)/TES/D200/0001/05-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
59	Flammable Gas Sensor	Troxel	STX3261	ERTL(E)/TES/T238/0063/11-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
60	BMAC I.S PLC 5442.1059	Baldwin & Francis	BMAC	ERTL(E)/TES/B252/0051/05-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
	BMAC I.S PLC 5442.1036	Baldwin & Francis	BMAC	ERTL(E)/TES/B252/0051/05-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
	BMAC I.S PLC 5442.1045	Baldwin & Francis	BMAC	ERTL(E)/TES/B252/0051/05-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
	BMAC I.S PLC 5442.1030-01	Baldwin & Francis	BMAC	ERTL(E)/TES/B252/0051/05-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
	BMAC I.S PLC 5442.1037	Baldwin & Francis	BMAC	ERTL(E)/TES/B252/0051/05-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
	BMAC I.S PLC 5442.1031	Baldwin & Francis	BMAC	ERTL(E)/TES/B252/0051/05-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
	BMAC I.S PLC 5442.1030-05	Baldwin & Francis	BMAC	ERTL(E)/TES/B252/0051/05-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006

Contd.,pa

Handwritten signature and date: 1.0.2016

S. No	Item Description	Manufac Turer	Model	Test Certificate No.	Standards to which test is conducted
61	Signals/Communication Unit (Dual Pilot Version)	Davis Derby	26323/1 & 26323/2	ERTL(E)/TES/D200/0011/04-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
62	3PH. FLP Water Cooled Induction Motor	ATB Morley	GXW69	ERTL(E)/TES/B318/0019/04-11	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007
63	3PH. FLP Water Cooled Induction Motor	ATB Morley	FMW56	ERTL(E)/TES/B318/0022/04-11	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007
64	8 Channel Interface	Baldwin & Francis	Type BB8-4758-4778	ERTL(E)/TES/B252/0050/05-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
65	Isolating Driver	MTL	5549	CIMFR/TC/P/H633	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
66	PMC-D	Caterpillar	PMC-D	ERTL(E)/TES/B318/0010/02-13	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
67	Drive Control Visualization Unit	Caterpillar	PMC-V	ERTL(E)/TES/B318/0009/02-13	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
68	FLP/WP Master Control & Visualization Unit	Caterpillar	MCU2D	CIMFR/TC/P/H477 (FLP) ERTL(E)/TES/B318/0032/06-13	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
69	Pressure Sensor	Caterpillar	PMC/PPT 100	ERTL(E)/TES/C255/0011/01-15	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
70	Pressure Switch	Caterpillar	DS 103 ES-MS	DE/BVS/ExTR15.0032/00	IEC 60079-0:2011 & IEC 60079-11:2011
71	Temperature Sensor	Caterpillar	PT100 & PT1000	DE/IBE/ExTR15.0004/00 Parts 60079-0 and 60079-11	IEC 60079-0:2011 & IEC 60079-11:2011
72	Differential Pressure	Caterpillar	RC861C	DE/BVS/15/1011	IEC 60079-0:2011 & IEC 60079-11:2011
73	Keyboard	Stahl	Axiom ET-4XX-KM-Desktop	ERTL(E)/TES/C255/0012/05-15	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
74	Proximity switch	Tiefenbach	IN*A***-1****,**	ERTL(E)/TES/C255/0015/05-15	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
75	Socket Adaptor Fitted With IPC	Victor	A40SA & A39P/I	ERTL(E)/TES/V051/0035/04-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
76	Coding /Terminal Plug	Caterpillar	PMC/CP1/TP1/TP2	ERTL(E)/TES/C255/0016/05-15	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
77	Servo Valve	MOOG	D631K	ERTL(E)/TES/C255/0001/07-15	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
78	Console amplifier unit	Davis Derby	26823	ERTL(E)/TES/D200/0008/04-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
79	Barrier	Davis Derby	25235	ERTL(E)/TES/D200/0018/04-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
80	3PH. Flameproof Inductions Motor	ATB Morley	DM39	ERTL(E)/TES/B318/0021/04-11	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007

Contd.,page 6

K. S. ...
5/10/2016

S. No	Item Description	Manufac Turer	Model	Test Certificate No.	Standards to which test is conducted
81	3PH. Flameproof Inductions Motor	ATB Morley	EM series (EM54L)	ERTL(E)/TES/B318/0020/04-11	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007
	3PH. Flameproof Inductions Motor	ATB Morley	EM Series (EM35M)	R31697A/00	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007
82	Junction Boxes/Remote Stop Start Unit	Baldwin & Francis	9098.2140 9098.2138 9098.2139	ERTL(E)/TES/B252/0033/12-13 ERTL(E)/TES/B252/0034/12-13 ERTL(E)/TES/B252/0035/12-13	IP 56
	Remote Stop Start Unit/Junction Box	Baldwin & Francis	9098.2140 9098.2138 9098.2139	ERTL(E)/TES/B252/0033/12-13 ERTL(E)/TES/B252/0034/12-13 ERTL(E)/TES/B252/0035/12-13	IP 56
83	Transducer	Gruenewald	SMALL-Ex	CIMFR/TC/P/H576 CIMFR/TC/S/H438	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
84	I.S. Solenoid	Kendrion	RM5080.0 1.00	CIMFR/TC/P/H749	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
85	I.S. Solenoid	BC	S.7.12.250	CIMFR/TC/P/H762	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
86	Potential Free Coupler	Caterpillar	PFC1	IECEX TSA 12.0015X AU/TSA/ExTr12.0018/00	IS/IEC 60079-0:2011 IS/IEC 60079-11:2011
87	DIS 5 Roadway amp unit	Davis Derby	26821	ERTL(E)/TES/D200/0004/04-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
88	Signals/Communication Unit (Single Pilot Version)	Davis Derby	26323/1 & 26323/2	ERTL(E)/TES/D200/0011/04-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
89	3PH. Flameproof Inductions Motor	ATB Morley	FM series (FM56)	R31698A/00	IS/IEC 60079-0:2011 IS/IEC 60079-1:2007
90	Flameproof Level Switch	Hytronic	LS4	ERTL (E)/TES/D130/0020/05-07 & ERTL Letter No. ERTL(E)/ Tech/Lab(M)/01/Vol.XII dated 05/11/2014	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007
	Flameproof Temperature Switch	Hytronic	LS4	ERTL (E)/TES/D130/0020/05-07 & ERTL Letter No. ERTL(E)/ Tech/Lab(M)/01/Vol.XII dated 05/11/2014	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007
	Flameproof Float & Level Switch	Hytronic	LS4	ERTL (E)/TES/D130/0020/05-07 & ERTL Letter No. ERTL(E)/ Tech/Lab(M)/01/Vol.XII dated 05/11/2014	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007

Contd.

R. J. ... 28/11/2016

S. No	Item Description	Manufac Turer	Model	Test Certificate No.	Standards to which test is conducted
91	Carbon Monoxide Detector	Troxex	TX6373	CIMFR/TC/P/H630	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
92	Bafflo Pump Motor	Baldwin & Francis	AM80	CIMFR/TC/P/H611	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007
93	Fan Motor	Baldwin & Francis	AM90	CIMFR/TC/P/H632	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007
94	3 Phase Flameproof Air Cooled Induction Motor	ATB Morley	W-EF100LJ	CIMFR/TC/P/H476	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007
95	DIS 5 Safety Coupler	Davis Derby	27020 (61-392-026)	ERTL(E)/TES/D200/0007/04-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
96	Remote signal oscillator	Davis Derby	26827 (62-012-002)	ERTL(E)/TES/D200/0010/04-12	IS/IEC 60079-0:2004 IS/IEC 60079-11:2006
97	Face light/luminary	Victor	MI102	CIMFR/TC/P/H126	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007 & IS/IEC 60529:2001
98	FLP Roof Bolter Motor (Fan Cooled)	Reliance	320T	IECEX SIR09.0011X, CofC IECEXSIR09.0011X Annex GB/SIR/ExTR09.0048/00 GB/SIREXTR10.0235/00 0879969-041	IEC 60079-0:2007-10 IEC 60079-1:2007-04
99	SCADA-Ethernet Switch	Baldwin & Francis	Scada R/N	ERTL(E)/TES/B252/0024/01-13	IS/IEC 60079-0:2004 IS/IEC 60079-1:2007

(Rahul Guha)

Director General of Mines Safety

