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S-29020/19/181(3)/A/2014/EHQ भारत सरकार/Government of India श्रम एवं रोजगार मंत्रालय Ministry of Labour & Employment खान सुरक्षा महानिदेशालय/ Directorate General of Mines Safety



No. 483/2063

/EHQ, Dhanbad, dated the

17-10- -2016

From:

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

To Shri Shib Bhowmik – Country Head M/s. Joy Global (UK) Ltd., Kirkby Lane, Pinxton Nottinghamshire NG 16 6HX United Kingdom.

Sub:- Approval under Regulation 181 (3) of the Coal Mines Regulations, 1957 for Flameproof and Intrinsically Safe electrical equipment (as mentioned in Annexure-B) associated with Twin Boom Bolter, Model: HDDR, conforming to IS/IEC 60079-1:2004, IS/IEC 60079-1:2007 and IS/IEC 60079-11:2006 manufactured by M/s. J.H. Fletcher & Co., Huntington for use in belowground coal mines in India.

Dear Sir,

Encl: Annexure-A&B

Based on the performance report received from General Manager (E&M) / HOD of M/s. South Eastern Coalfields Ltd., Bilaspur and test reports from CIMFR/ERTL, I hereby accord approval for Flameproof and Intrinsically Safe electrical equipment associated with Twin Boom Bolter, Model: HDDR, as per Annexure-B, manufactured by M/s. J.H. Fletcher & Co., Huntington for use in belowground coal mines in India for a period of <u>five (05) years from the date of issue of this letter</u> for use in belowground coal mines in India, 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

DGMS approval no. 714 of 2016 issued by Directorate's letter no. 483/2063 /EHQ dated 17-10-2016

Conditions for DGMS approval under Regulation 181(3) of the Coal Mines Regulations, 1957 for Flameproof and Intrinsically Safe electrical equipment (as mentioned in Annexure-B) associated with Twin Boom Bolter, Model: HDDR, conforming to IS/IEC 60079-1:2004, IS/IEC 60079-1:2007 and IS/IEC 60079-11:2006 manufactured by M/s. J.H. Fletcher & Co., Huntington for use in belowground coal mines in India.



- 2. The relevant provisions of the Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2010 shall be complied with in all matter relating to the installation, operation and maintenance of the equipment.
- 3. The electric supply to the machine shall be controlled from flameproof Gate-end-Box with intrinsically safe supply for control circuit of suitable rating along with sensitive earth leakage protection.
- 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.
- The plug and socket assembly affixed to the motors/panel, if provided, will be so interlocked as to prevent removal of plug from the socket while alive.
- Any replacement of part 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.
- 7. The electrical equipment associated with the machine shall be checked by the 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. The user shall furnish the performance report of the equipment directly to this Directorate after one (01) year of actual use.

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- (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.
- 10. 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.
- 11. The users in consultation with the manufacturer, shall frame a code of practice to provide the guidance of persons employed for installation, operation and maintenance of Twin Boom Bolter Model: HDDR and associated equipments, as well as to provide safety, health, convenience and discipline of persons so employed.
- 12. Technical assistance shall be provided by the supplier at the time of initial installation. The supplier 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.
- 13. The fire resistant hydraulic fluid shall conform to the standards and parameters as prescribed in the DGMS/Mech/Tech.Cir (Approval) No. 02, Dhanbad, dated 13.02.2015.
- 14. The high pressure hydraulic hoses supplied with the machine shall conforme to the standards and parameters as prescribed in the DGMS/Mech/Tech.Cir (Approval) No. 04, Dhanabd, dated 13.02.2015.
- 15. The cables in Machine shall conform to requirement of provisions of the DGMS Tech. Circular (Electrical) No. 12 dated 25.05.2015 and DGMS Tech. Circular (Electrical) Approval No. 01 dated 19.02.2016 in addition to the special requirement, if any, specifically for the safe operation of the machine.
- 16. 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.
- 17. 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.
- 18. The cable entry devices, threaded adaptors and stopping plugs shall be suitable for the equipment and be considered as a part of equipment (not a component). The cable entry device and cabling methods used shall be suitable for their intended duty and for the special type of cable used in mining. Such cable entry devices shall be duly certified as per relevant IS/IEC standards.

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- 19. The Audio Visual Alarm used in the machine shall conform to the standards and parameters as prescribed in the DGMS Tech. Circular (Electrical), Approval No. 21 dated 05.10.2015.
- 20. The approval is accorded for a period of <u>five (05) years</u> <u>from the date of issue of this letter</u>.
- 21. At the time of applying for renewal, details of supply with name of mines, purchase order and date shall be furnished with the application.
- 22. Any modification/alteration to the machine that might be considered necessary at a later date in the interest of safety or/and efficient handling, operation, maintenance and maneuverability of the machine shall be carried out upon being so directed.
- 23. If at any time any of the conditions subject to which this approval has been granted, is violated or not complied with, this approval shall be deemed to have been revoked with immediate effect.
- 24. 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 

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SI No.	Details of FLP, IS electrical components and cables.	Manufacturer Name	Test report/ Approval No.
1.	Flameproof CONTROLLER STATION Type CT1040, rated1100V/525V	M/s EMIS/COAL TECH, South Africa	CIMFR/TC/P/H695 DT 05/02/2014
2.	Flameproof 3phase, Induction Motor in frame size 320T, rated at 37kW, 1100V, 4-pole Ex d.	M/s BALDOR ELECTRIC COMPANY	CIMFR/TC/P/H686 DT 29/01/2014
3.	Flameproof enclosure for CABLE REELER rated at 300A, 1100V.	M/s JOY MINING MACHINERY	CIMFR/ TC/P/H320 DT 26/07/2012
4.	Flameproof CONNECTION/SWITCH BOX, Model MA001012-0018.	M/s JOY MINING MACHINERY	ERTL( E) TES/J057/0053 /09-12 DT 10/10/2012
5.	Flameproof STOP/START UNIT Model-SS1.	M/s JOY MINING MACHINERY	ERTL(E)/TES/J057/0074/11- 12 DT 04/12/2012
6.	Flameproof SWITCH/CONNECTION BOX type: 5000016252.	JOY MINING MACHINERY	CIMFR/TC/P/H661 DT. 13/01/2014
7.	FLP/WP LED MINING LUMINAIRE, Type ML100.	M/s Victor Products Ltd, UNITED KINGDOM	CIMFR/TC/P/H552 DT 28/11/2013
8.	FLP/WP A42 Range Restrained of Connectors (Plug, socket, plug coupler & test plug) Type A42	M/s Victor Products Ltd, UNITED KINGDOM	CIMFR/TC/P/H475 DT. 23/10/2013
9.	FLP/WP FLUROCENT LUMINAIRE Type 41LA, 58W, 250V AC	M/s Victor Products Ltd, UNITED KINGDOM	CIMFR/TC/P/H634 DT. 26/11/2013
10.	FLP SIREN, Type HSHC	M/s. HYTRONIC, SOUTH AFRICA	ERTL(E)/TES/J057/0026/01- 13 DT 05/03/2013

(Rahul Guha)
Director General of Mines Safety