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**BUREAU OF INDIAN STANDARDS**  
**MINUTES**

| Name of the Committee   | No. of Meeting   | Day    | Date       | Time     | Venue   |
|---|------------------|--------|------------|----------|---|
| Electrical Apparatus for Explosive Atmospheres, Sectional Committee, ETD 22 | 28 <sup>th</sup> | Monday | 24-06-2024 | 10:30 AM | <b>Physical Meeting</b><br>Vimarsha(Blue Room)<br>BIS HQ, New Delhi |

**CHAIRMAN:** Mr Ajay Singh, DDG(Elect.) DGMS

**MEMBER SECRETARY:** Mr Nitish Kumar Jain

**Members Present:**

| Sl. No. | Organization  | Member Name                               | E Mail   |
|---------|---|---|--|
| 1.      | Directorate General of Mines Safety, Dhanbad                      | Shri Ajay Singh<br>(Chairperson)          | <a href="mailto:ajaysingh@dgms.gov.in">ajaysingh@dgms.gov.in</a>                     |
| 2.      | Bureau of Indian Standards, New Delhi                             | Shri Asit Kr Maharana<br>(Head ETD)       | <a href="mailto:eetd@bis.gov.in">eetd@bis.gov.in</a>                                 |
| 3.      | Bureau of Indian Standards, New Delhi                             | Shri Nitish Kr Jain<br>(Member Secretary) | <a href="mailto:eetd@bis.gov.in">eetd@bis.gov.in</a>                                 |
| 4.      | Baliga Lighting Equipments Private Limited, Chennai               | Shri K. Sakthival                         | <a href="mailto:certification@baliga.com">certification@baliga.com</a>               |
| 5.      | Bharat Bijlee Limited, Mumbai                                     | Shri Jayendra Garud                       | <a href="mailto:Jayendra.Garud@bharatbijlee.com">Jayendra.Garud@bharatbijlee.com</a> |
| 6.      | CG Power and Industrial Solutions, Mumbai                         | Shri Pravin Kumar Pandit                  | <a href="mailto:pravinkumar.pandit@cgglobal.com">pravinkumar.pandit@cgglobal.com</a> |
| 7.      | Coal India Limited, Kolkata                                       | Shri P. K. Mandal                         | <a href="mailto:proloykr.mandal@coalindia.in">proloykr.mandal@coalindia.in</a>       |
| 8.      | EMERSON   | Shri Ajay Patidar                         | <a href="mailto:ajay.patidar@emerson.com">ajay.patidar@emerson.com</a>               |
| 9.      | Flameproof Equipments Private Limite, Mumbai                      | Shri Haresh Dhoot                         | <a href="mailto:sales@flameproofequipments.com">sales@flameproofequipments.com</a>   |
| 10.     | Gujarat Narmada Valley Fertilizers and Chemicals Limited, Bharuch | Shri M U Thakker                          | <a href="mailto:muthakker@gnfc.in">muthakker@gnfc.in</a>                             |
| 11.     | IN PERSONAL CAPACITY  | Shri Niraj Sethi                          | <a href="mailto:niraj.sethi1@gmail.com">niraj.sethi1@gmail.com</a>                   |
| 12.     | Indian Flameproof Manufacturers Association, Mumbai               | Shri Nilesh Agarwal                       | <a href="mailto:ssplfp@gmail.com">ssplfp@gmail.com</a>                               |
| 13.     | Intertek India Private Limited, Gurugram                          | Shri Rakesh Chaurasia                     | <a href="mailto:rakesh.chaurasia@intertek.com">rakesh.chaurasia@intertek.com</a>     |
| 14.     | Karandikr Laboratories Private Limited, Mumbai                    | Shri Ajit Vasudev Karandikar              | <a href="mailto:ajitk@karandikarlab.com">ajitk@karandikarlab.com</a>                 |
| 15.     | Minline Private Limited, Kolkata                                  | Shri K K Prasad                           | <a href="mailto:kaliprasad@miline.in">kaliprasad@miline.in</a>                       |
| 16.     | Minline Private Limited, Kolkata                                  | Shri Tapas Mazumdar                       | <a href="mailto:tapas@miline.in">tapas@miline.in</a>                                 |
| 17.     | Oil and Natural Gas Corporation Limited, New Delhi                | Shri Sree Hari Sankar TV                  | <a href="mailto:sankar_sreeharitv@ongc.co.in">sankar_sreeharitv@ongc.co.in</a>       |

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\*Regret: 1) EIL, 2) CIMFR

### ITEM 0 GENERAL

#### 0.1 Welcome by Member Secretary

Member Secretary welcomed all the members to the 28th meeting of Electrical Apparatus for Explosive Atmospheres Sectional Committee, ETD 22.

#### 0.2 Welcome and Opening Remarks by Chairman

Mr. Ajay Singh, Chairman of ETD 22, welcomed the members present at the meeting and emphasized the importance of convening in person. He provided an update on the task assigned to Panel 1 under his convenorship, noting that a few members have yet to respond. He opined that Panel 1 should be reconstituted to include more active members. He requested that members focus their discussions on the agenda points to ensure that all items are covered comprehensively and concluded by wishing everyone a productive and in-depth discussion on all agenda items.

### ITEM 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

As there were no further comments, the minutes of the last meeting (27<sup>th</sup> meeting) of Electrical Apparatus for Explosive Atmospheres Sectional Committee, ETD 22 held on 01 December 2023 at BIS HQ, New Delhi, circulated vide BISDG letter No. ETD 22/A-2.27 dated 18 December 2023 has been formally confirmed.

### ITEM 2 COMPOSITION OF ELECTRICAL APPARATUS FOR EXPLOSIVE ATMOSPHERES, SECTIONAL COMMITTEE, ETD 22

2.1.1 The committee noted the information given in the Agenda and decided to drop following organizations in order to balance stakeholder's composition:

- a) DNV Business Assurance India Pvt. Ltd., Mumbai
- b) Gilbarco Veeder Root India Private Limited, Mumbai
- c) Kaanra Technology INC, Chennai

2.1.2 The committee felt there is a need of active participation of the different Government Departments. It was decided to re-write to all Govt. Departments (inactive) requesting for active participation.

2.2 The committee decided to consider the co-option request received from following organizations in the next meeting since industry representation is balanced at present.

| SI No | Name of Proposed Member   | Organisation                              |
|-------|---|---|
| 1.    | Praveen Kumar Praveen (Chief Executive Officer)                 | AGG Lifesciences and Safety Solutions LLP |
| 2.    | Anantharaman Venkatesan (Programme Manager)                     | Eaton MTL Instruments Pvt Ltd             |
| 3.    | Shri Yashwant M. Jannu (Vice President- Research & Development) | Auma India Private Limited, Bengaluru     |

2.3 The committee noted the information given in the Agenda and decided to co-opt IIT-ISM, Dhanbad into the committee.

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**Item 3 OVERVIEW OF THE ACTIVITIES OF THE COMMITTEE**

**3.1** The present position of work under Electrical Apparatus for Explosive Atmospheres, Sectional Committee, ETD 22 is given below:

| Sl. No. | Item No. of Agenda | ITEM   | Action Taken   | Decision  |
|---------|--------------------|--|--|---|
| 1.      | 3.1.1              | <p>The Panel 1 under the convenorship of DDG(Elect.), DGMS was assigned the responsibility for the review/ revision of the following Indian Standards: -</p> <p>i) ETD 22 (22810) WC <b>Code of Practice for Installation and Maintenance of Electrical Equipment in Mines (First Revision of IS 4051)</b> wide circulated on 04-07-2023 for eliciting public comments with last date as <b>02 Sep 2023</b>.</p> <p>ii) ETD 22 (22815) WC <b>Guide for Selection of Electrical and Electronic Equipment for Coal Mines (First Revision of IS 9559)</b> wide circulated on 04-07-2023 for eliciting public comments with last date as <b>02 Sep 2023</b>.</p> <p>iii) Panel 1 recommended for withdrawal of <b>IS 5679: 1986</b> "Miner's cap lamp assemblies incorporating lead acid type batteries" as IS/IEC 60079-35-1 &amp; 2 is being followed.</p> <p>iv) <b>IS 9836: 1988</b> "Specification for exploders"</p> <p>v) Draft standard on the subject "Explosive Atmospheres- Electrical Installations Design, Selection and Erection for</p> | <p>i) The committee decided to request Panel 1 to resolve the comments received on Doc ETD 22 (22810) WC and submit the report within 2 months.</p> <p>ii) The committee decided to request Panel 1 to resolve the comments received on Doc ETD 22 (22815) WC and submit the report within 2 months.</p> <p>iii) The committee decided to withdraw IS 5679: 1986 based on the recommendation of Panel 1.</p> <p>iv) IS 9836 is under review by DGMS.<br/><br/>BIS has published IS 18462: 2023 Electronic Detonators Specification.</p> <p>v) Panel 1 is reviewing the draft shared by IFMA.</p> | <p>i) Chairperson requested IFMA to organize the meeting of Panel 1 for resolution of the comments.</p> <p>ii) Chairperson requested IFMA to organize the meeting of Panel 1 for resolution of the comments.</p> <p>iii) IS 5679: 1986 is withdrawn.<br/><i>The committee noted the information.</i></p> <p>iv) The committee decided to withdraw IS 9836: 1988 in view of the DPIIT notification dated 29<sup>th</sup> September 2023 phasing out of electric detonators.</p> <p>v) Chairperson requested IFMA to organize the meeting of Panel 1 to discuss on the draft.</p> |

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|----|-------|---|--|---|
|    |       | Coal Mines (Gr-I)".<br>vi) <b>IS 2772:1982</b> 'Non Flameproof mining transformers for use below ground' and <b>IS 11333:1985</b> 'Flameproof dry-type transformers for use in mines' | vi) The committee requested Panel 1 to review IS 2772 & IS 11333 along with the comparison document prepared by Ms Nandini Chakravarty for revision of above-mentioned Indian Standards. | vi) Chairperson requested IFMA to organize the meeting of Panel 1 for discussion. |
| 2. | 3.1.2 | <b>IS 10398: 1982</b> 'Zener barriers for intrinsically safe process control instruments'   | The committee noted the comments received and decided to withdraw IS 10398: 1982 as the requirements are being covered under IS/IEC 60079-11.  | IS 10398: 1982 is withdrawn.<br><i>The committee noted the information.</i>       |

**3.2.1** The committee noted the documents under printing given in *Item 3.2* of Agenda.

Members requested that the implementation timelines be aligned with best international practices.

**3.2.2** Mr. Ajit Karandikar highlighted the significant delays in the adoption process following the publication of standards by the IEC. The Member Secretary then outlined the various stages involved in the publication of Indian Standards. Mr. Karandikar requested that steps be taken to expedite the publication process and reduce the overall time required.

**3.3** The committee noted the information given in the Agenda.

## Item 4 REVIEW OF INDIAN STANDARDS FOR REVISION/ REAFFIRMATION

The committee approved reaffirmation of following Indian Standards:

1. IS/IEC 60079-1: 2014 Explosive Atmospheres - Part 1: Equipment Protection by Flameproof Enclosures "d"
2. IS/IEC 60079-29-1: 2016 Explosive atmospheres Part 29 Gas detectors Section 1 Performance Requirements of Detectors for Flammable Gases
3. IS/IEC 60079-35-1: 2011 Explosive Atmospheres Part 35 Caplights for Use in Mines Susceptible to Firedamp Section 1 General requirements: Construction and testing in Relation to the risk of explosion
4. IS/ISO/IEC 80079-34: 2018 Explosive Atmospheres Part 34 Application of Quality Management Systems for Ex Product Manufacture

## Item 5 INTERNATIONAL ACTIVITIES

**5.1.1** The committee decided to circulate the documents mentioned in *Item 5.1* of Agenda for review of the committee.

**5.1.2** Mr. Ajit Karandikar proposed the establishment of shadow Working Panels at the national level to significantly enhance the National Mirror Committee's capacity for engaging in fruitful discussions on international developments. The committee requested Mr. Karandikar to share the details of the proposed Working Panels, including the list of members, in consultation with IFMA.

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5.2 The committee noted the information given in the Agenda.

5.3 The committee approved the participation of following members in the upcoming IEC TC 31 and SC's meeting

| Title of TC/SC  | Date of Meeting                   | Mode of Participation            | Member Details   |
|---|-----------------------------------|----------------------------------|--|
| IEC TC 31<br>Equipment for explosive atmospheres                                    | 23 October 2024<br>(09:00-17:30h) | Edinburgh (GB)<br>(Face-to-Face) | 1. Nandini Chakravarty,<br>Mineline Pvt. Ltd<br>2. Krish Singh, Ex-safeT<br>3. Member Secretary, BIS |
| SC 31 J<br>Classification of hazardous areas and installation requirements          | 21 October 2024<br>(09:00-12:30h) | Edinburgh (GB)<br>(Face-to-Face) | 1. Krish Singh, Ex-safeT<br>2. Member Secretary, BIS   |
| SC 31M<br>Non-electrical equipment and protective systems for explosive atmospheres | 22 October 2024<br>(09:00-17:30h) | Edinburgh (GB)<br>(Face-to-Face) | 1. Krish Singh, Ex-safeT<br>2. Member Secretary, BIS   |

5.4 Chairperson requested members to review the IEC TC 31 WGs and MTs and nominate experts where there are no Experts nominated from India.

The Member Secretary requested that the existing experts nominated to the IEC keep BIS and the committee informed of developments by submitting reports after meetings and detailing their contributions therein.

## ITEM 6 ACTION ARISING OUT OF PREVIOUS MEETING

| Sl. No. | Item No. of Agenda | Item  | Action Taken / Proposed   | Decision   |
|---------|--------------------|---|---|--|
| 1.      | 6.1                | A Panel was constituted in MED 38 with experts who also have members of ETD 22, Shri Rakesh Chaurasia, Intertek and Shri Sujit Koli, Gilbarco Veeder Root India Private Limited to prepare standard on 'Petroleum Dispenser'. | The committee decided to request Shri Rakesh Chaurasia to share the draft with ETD 22 members.<br><br>Draft on 'Petroleum Dispenser' shared by Shri Rakesh Chaurasia.                           | Shri Rakesh Chaurasia is requested to kindly expedite the matter under MED 38 for publication of the standard. |
| 2.      | 6.2                | IFMA requested PESO & DGMS to implement following India Standards by referring them in statutory rules & regulations:<br><br>i) IS/ISO/IEC 80079-34 Explosive Atmospheres Part 34 Application of Quality Management           | a) Email sent to Central Marks Dept (CMD-3), BIS for necessary action with a copy to IFMA.<br><br>b) Request for implementation of IS/ISO/IEC 80079-34 sent to Management Systems Certification | IFMA is requested to kindly follow up with concerned Dept's.   |

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| Sl. No. | Item No. of Agenda | Item  | Action Taken / Proposed   | Decision   |
|---------|--------------------|---|---|--|
|         |                    | Systems for Ex Product Manufacture<br>ii) IS/ISO/IEC 80079-36 Explosive Atmospheres - Part 36 Non-electrical Equipment for Explosive Atmospheres- Basic Method and Requirements<br>iii) IS/ISO/IEC 80079-37 Explosive Atmospheres - Part 37 Non-electrical Equipment for Explosive Atmospheres- Non-Electrical Type of Protection Constructional Safety "c", Control of Ignition Source "b", Liquid Immersion "k"<br>iv) IS/ISO/IEC 80079-38 Explosive Atmospheres - Part 38 Equipment and Components in Explosive Atmospheres in Underground Mines | Dept (MSCD). Queries raised by MSCD were forwarded to IFMA for resolution.  |  |
| 3.      | 6.3                | IFMA requested to ascertain from Indian Testing labs if Petroleum, CNG, LPG and hydrogen dispensers can be certified referring to IS/ISO/IEC 80079-36, IS/ISO/IEC 80079-37 for Non-electrical equipment for explosive atmospheres and IS/IEC TS 60079-46 for Equipment Assemblies along with IS IEC 60079 series of standards for electrical equipment used in assembly.  | LRMD, BIS informed that they are following up with Indian Testing labs for ascertaining.<br><br>Received response from Labs as below:<br><br><i>Dispensing unit has their own applicable standards and they cannot be exclusively certified as per standards mentioned.</i> | IFMA is requested to send a cooption request to MED 38 for participation and expediting publication of standard on 'Petroleum Dispenser' under MED 38. |

**ITEM 7 INFORMATION ON e-SALE OF STANDARDS BY BIS**

The committee noted the information given in the Agenda.

**ITEM 8 NATIONAL INSTITUTE FOR TRAINING IN STANDARDISATION (NITS)**

In order to create awareness about Indian Standards under ETD 22, it was decided to conduct Capsule Course at **NITS, Noida**. IFMA to share the details on the content as well as faculties who can deliver the lectures.

**ITEM 9 DATE AND PLACE OF NEXT MEETING**

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It was decided to hold the next meeting at IIT(ISM), Dhanbad along with a Seminar. The final date and place shall be decided in consultation with the Chairman.

**ITEM 10 ANY OTHER BUSINESS**

**10.1** Shri Niraj Sethi suggested to invite OISD in the next meeting for presentation on their upcoming standard OISD-STD-241 Safety in the production, storage, and transportation of hydrogen and hydrogen blends.

The meeting ended with a Vote of Thanks to Chairman.

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