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Ref.No.MAIT/PY/1743

April 02, 2019

Smt. Surina Rajan
Director General
Bureau of Indian Standards

Respected Madam,

Greetings from MAIT!

Sub: Guidelines for Implementation of Revised Standards dated 11th March 2019– Revised Registration Number to all the Batteries/Cells

We write to you with reference to the latest guidelines released by BIS dated 11th March 2019 against the Battery/Cell Standard IS 16046(Part 2):2018 / IEC 62133-2:2017 switchover & extending the sunset date till March 14, 2020 in line with the global trend **(Annexure 1)**

IS16046:2015/IEC 62133: 2012 has been revised and published in the 2 parts, wherein the batteries/cell would be issued New R-Number in conformity with the revised standard

1. IS 16046 (Part 1): 2018/ IEC 62133-1: 2017 for **Nickel systems**
2. IS 16046 (Part 2): 2018/ IEC 62133-2:2017 for **Lithium systems**

We take this opportunity to highlight that the latest guidelines would create various implementation issues and request that the **Registration number after re-testing should remain the same.**

In view of the above request, we hereby list the reasons for Registration number to remain the same as it will create unnecessary investment in time and costs for conforming to the new guidelines. They are as follows:

- **Labelling & Extra Documentation**:
  - Issuance of a fresh Registration Number against the battery system would require changes in the product battery labeling and also extra documentation work for the main product viz. Mobile phones, tablets, laptops, Power banks, etc.
  - Critical Component List (CCL) of the main product enlists the Battery/Cell incorporated. CCL for each product will have to be updated once the new R-number for batteries is received.

- **Issue of Market Surveillance:**
  - The R-number is to be mentioned in the test report. Failing to update in the test report would be risk during the market surveillance.
  - To update the test report would require investment of time as, in the 1st round, test of all batteries will be done and in the 2nd round, all host product of CCL changes. During the two rounds, if any Market Surveillance sample is picked up with battery standard updated but with host sample report with old CCL list, then it would create a lot of confusion and implementation problems. To update to new standard number i.e. IS 16046 (Part 2):2018, will require investment in time as existing documents will have old standard details.

- **Other Compliance Issues Faced by the Industry:**
  In addition to the above stated reasons, the industry is already facing other compliance pressures, described below for your reference:

  - As witnessed in the previous cases like Indian Language support, where a new standard conformity over all the Legacy model registrations of a product had clogged the process and had been detrimental to the industry with implications in delays in product launch.
  - The upcoming TEC Certification has already put pressure over the brands to comply with the regulations & documentation, and in some cases for mobile phones, under both the regulators for the safety parameter.

Madam, we would also bring to your notice that majority of the electronics products are powered by Lithium ion batteries which constitute as a larger portion of the CRO Registrations.

Manufacturers of ubiquitous products such as Mobile Handsets, Laptops etc., where multiple Battery/Cell Vendors for a given Product is a norm, is a huge compliance exercise for both testing, updating the registrations at BIS and amending documentation of the main product model.

Thus, in this regard we would like to suggest for your consideration that the Registration Number issued after retesting as per new standard for the Lithium ion batteries should remain the same as the current Registration Numbers against running Li-ion battery/cell registrations.

We look forward to your support in the matter and would be happy to provide any additional information that you may require.

With warm regards,

Anwar Shirpurwala
Chief Executive Officer

CC: Shri Joy Varghese, Sr. DDG, Bureau of Indian Standards
CC: Smt. Nishat S Haque, Head-Registration, Bureau of Indian Standards

Central Marks Department-III

Ref: CMD-III/16: IS 16046 11 March 2019

Subject: Guidelines for Implementation of Revised Standards IS 16046 (Part 1): 2018/ IEC 62133-1: 2017 and IS 16046 (Part 2): 2018/ IEC 62133-2: 2017 superseding IS 16046:2015/ IEC 62133: 2012 - Secondary cells and batteries containing alkaline or other non-acid electrolytes.

1. IS 16046:2015/IEC 62133: 2012 has been revised and published in the following two parts:

i. **IS 16046 (Part 1): 2018/ IEC 62133-1: 2017** - 'Secondary Cells and Batteries Containing Alkaline or Other Non-Acid Electrolytes — Safety Requirements for Portable Sealed Secondary Cells and for Batteries Made from Them for Use in Portable Applications **Part 1 Nickel Systems**'.

ii. **IS 16046 (Part 2): 2018/ IEC 62133-2:2017** - 'Secondary Cells and Batteries Containing Alkaline or Other Non-Acid Electrolytes — Safety Requirements for Portable Sealed Secondary Cells and for Batteries Made from Them for Use in Portable Applications **Part 2 Lithium Systems**'.

2. The last date for implementation of the revised Standards is **14 March 2020** after which the old Standard IS 16046:2015/IEC 62133: 2012 shall stand withdrawn.

3. The significant changes in the revised Standards as listed below is given for the purpose of general guidance. Licensees/ Applicants shall ensure that the product conforms to all the requirements, as applicable, as per the revised Standard.

IS 16046 (Part 1): 2018/ IEC 62133-1: 2017

- separation of lithium systems into a separate part (i.e. Part 2)
- inclusion of button cell requirements.

IS 16046 (Part 2): 2018/ IEC 62133-2: 2017

- separation of nickel systems into a separate part (i.e. Part 1)
- inclusion of coin cell requirements
- update of assembly of cells into batteries (5.6)
- mechanical tests (vibration - 7.3.8.1, shock - 7.3.8.2)

4. Considering the above changes, the additional/modified tests that are to be conducted for changeover for the existing registered manufacturers are tabulated below.

For Nickel Systems (IS 16046 (Part 1): 2018/ IEC 62133-1: 2017)	
Clause	**Inspection/ Test**
5.2 Insulation and wiring	Mechanical integrity of internal connections to be checked where connections are through soldering
5.6 Assembly of cells into batteries	Batteries shall be inspected for the following: The battery shall have some type of safety device or feature for charging. Batteries that are designed for the selective discharge of a portion of their series connected cells shall have circuitry incorporated to prevent operation of cells outside the limits specified by the cell manufacturer.
7.2.4 Temperature cycling	Modification in test procedure w.r.t. transition time from step 4 to step 1 for repeat test under step 5
7.3.5 Thermal abuse (Cells)	Modification in test procedure
7.3.6 Crush (Cells)	Modification in test procedure w.r.t. the force applied
8.2, 9.3 Small cell and battery safety information	Small cell and battery packages to be inspected for caution information
10 Packaging	Packaging for button cells shall not be small enough to fit within the limits of the ingestion gauge of Figure 2 of IS 16046 (Part 1): 2018
For Lithium Systems (IS 16046 (Part 2): 2018/ IEC 62133-2: 2017)	
Clause	**Test**
5.2 Insulation and wiring	Mechanical integrity of internal connections to be checked where connections are through soldering
5.6.1 Assembly of cells into batteries	Batteries shall be inspected for the following: If there is more than one battery housed in a single battery case, each battery should have protective circuitry that can maintain the cells within their operating regions. Batteries that are designed for the selective discharge of a portion of their series connected cells shall have circuitry incorporated to prevent operation of cells outside the limits specified by the cell manufacturer.

	Protective circuit components should be added as appropriate and consideration given to the end-device application. The manufacturer of the battery should provide a safety analysis of the battery safety circuitry with a test report including a fault analysis of the protection circuit under both charging and discharging conditions confirming the compliance.
5.6.2 Design recommendation	Design recommendations updated
7.3.1 External short-circuit (cell)	Modification in test procedure
7.3.2 External short-circuit (battery)	Modification in test procedure
7.3.4 Thermal abuse (cells)	Modification in test procedure
7.3.5 Crush (cells)	Modification in test procedure
7.3.6 Over-charging of battery	Modification in test procedure
7.3.7 Forced discharge (cells)	Modification in test procedure
7.3.8 Mechanical Tests	New Tests added
8.2, 9.3 Small cell and battery safety information	Small cell and battery packages to be inspected for caution information
10 Packaging	Packaging for button cells shall not be small enough to fit within the limits of the ingestion gauge of Figure 2 of IS 16046 (Part 2): 2018

5. <u>The guidelines for implementation of the revised Standards is given below:</u>

(i) Applications for Grant of Licence (GoL)/ requests for Change in Scope of Licence (CSoL) already submitted in BIS shall be processed as per old version. Fresh applications for GoL/ CSoL as per old version shall be accepted only up to 14 Feb 2020.

(ii) For GoL / CSoL Applications processed as per old version, manufacturer shall switchover to new version on or before 14 March 2020 failing which such Application(s) for GoL/CSoL shall be processed for closure/rejection as per norms. Beyond 14 march 2020, no Registration shall be granted as per old version.

(iii) Fresh Applications for GoL may also be submitted as per new version.

6. <u>Procedure for switchover</u>

(iv) Existing manufacturers can follow either Option A or Option B given below:

<u>Option A</u>

(v) Existing manufacturers having Registrations as per IS 16046: 2015 shall apply for a new Registration No. through the portal as per the applicable Indian Standard (IS 16046: Part 1: 2018 for Ni systems/ IS 16046: Part 2: 2018 for Li systems as the case may be) by paying the Application fee and the Annual Licence fee. In case both Ni

systems and Li systems are presently covered in the scope, two separate Applications shall be made.

(vi) The new Applications mentioned above shall be accompanied by the minimum documents (Form-I, Undertaking, Letter of nomination of Authorized Indian Representative) and supplementary Test Report(s) for changeover for all the base models covered in the Scope of Registration. The Test Report(s) shall be from any BIS approved lab for the additional/modified requirements as per the applicable revised Standard. Copy of corresponding Test Report (as per IS 16046: 2015) and GoR/ Inclusion letter issued earlier shall also be submitted. The Scope of the Licence so granted shall reflect the models for which changeover is processed with the relevant IS No. and a new Registration No. The validity of this new Registration shall be the same as the validity of the parent Licence as per IS 16046: 2015. All subsequent changeover requests shall be submitted under the new Registration No. only.

(vii) Fresh CSoL requests as per IS 16046: Part 1: 2018 or IS 16046: Part 2: 2018, if any, shall be submitted under the new Registration so granted along with all applicable fees. CSoL requests as per IS 16046: 2015 shall be processed under the parent Registration for IS 16046: 2015. However such requests shall be accepted only until 14 Feb 2020.

Option B

(viii) In case any manufacturer does not wish to go for a changeover, he may apply for a new Registration directly as per the applicable Indian Standard along with complete test reports, full documentation and all applicable fees. In such case, there shall be no linking of validity or Scope of Licence with the old Registration.

7. Registrations as per IS 16046: 2015 may be processed for cancellation after 14 March 2020.

8. Renewal of Licence for switchover cases as per Option A

For Registrations with validity on or before 14 March 2020: Manufacturer shall make a renewal application with all applicable fees under the old Registration No only (i.e. the one held for IS 16046: 2015). On renewal, the validity of the parent Registration shall be reflected in the new Registration No(s) also (i.e. the ones held for IS 16046: Part 1: 2018 or IS 16046: Part 2: 2018).

For Registrations with validity after 14 March 2020: Manufacturer shall make a renewal application with all applicable fees under the new Registration No(s) (i.e. the ones held for IS 16046: Part 1: 2018 or IS 16046: Part 2: 2018).

9. All Registered Manufacturers and Applicants shall take timely actions for switchover as per the above guidelines.

10. This issues with the approval of Competent Authority.

A R UNNIKRISHNAN
(HEAD CMD III)