## Quantities, Units and Letter Symbols Committee Minutes 12 March 2021, 4:00 to 5:00 PM EST Web Teleconference Meeting

#### 1. Call to order

The Spring 2021 meeting of SCC 14 was called to order at 4:02 PM EST on 12 March 2021 by the Chair, Doug Edwards.

A roll call of attendees was taken with the following individuals noted.

### 2. Determination of Quorum

| Last Name | First Name | Affiliation                                  | Role          | Present  |
|-----------|------------|--|---------------|----------|
| Edwards   | Doug       | Siemens                                      | Chair         | ✓        |
| Flowers   | Keith      | Siemens                                      | Vice-Chair    | ✓        |
| Shull     | Stephen    | BBC Electrical<br>Services                   | Secretary     | <b>✓</b> |
| Balma     | Peter      | Individual                                   | Voting Member | ✓        |
| Curey     | Randy      | Northrup<br>Grumman                          | Voting Member | ✓        |
| Benham    | Elizabeth  | NIST   | Voting Member |          |
| Hoffman   | Gary       | Advanced Power<br>Technologies               | Voting Member | <b>√</b> |
| Ressel    | Howard     | New York State<br>Dept. of<br>Transportation | Voting Member | <b>✓</b> |
| David     | Graves     | Point 8 Power                                | Observer      | ✓        |
| Michael   | Kipness    | IEEE   |               | ✓        |

With 7 of 8 members present, a quorum was declared for all manner of business.

### 3. Approval of Agenda

The agenda was sent out previously. A motion was made by Peter Balma, seconded by Keith Flowers for approval of the agenda. Hearing no objections, Doug declared it approved by consent.

### 4. Approval of SCC14 Main Committee Minutes (2020-04-16)

The meeting minutes were sent out previously. There were no corrections or additions. A motion was made by Howard Ressel, seconded by Peter Balma for approval of the minutes. Hearing no objections, Doug declared it approved by consent.

### 5. Call for Patents and Copyright Notice

There were no patent issues. The copyright policy was discussed.

### 6. Chair's Remarks

The Chair expressed concern about the low membership in this committee. He had always believed in the thought that the way

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we increase membership is to ask someone we know. However, we need to reach out to IEEE marketing to help us seek interest in this group using whatever publication would be appropriate. It was suggested that we need to reach out to Educational Activities to see if we can enlist educators who might be interested in this committee's work. It was asked if we could reach out to the membership of the IEEE. It was pointed out that, due to GDPR regulations, we could not use emails that were not published in a public space. It was suggested that we might also reach out to student chapters to see if there might be graduate students interested in this work. Howard Ressel as the liaison to the Metric Association suggested that this request could also be published in their newsletter.

### 7. Reports by Standard/Working Group and Liaisons See Annex A: SCC14 Document Status

## 7.1. P1541, IEEE Standard for Prefixes for Binary Multiples Report: K. Flowers, Chair

A PAR extension request was submitted and approved. The document had been balloted back in 2018 with 160 comments. A number of these were repeats. The ballot group consisted of 107 individuals. There was an 85% return rate with an 80% approval rate. These comments were addressed. Because of the time it has been since the ballot and the changes incorporated in the document, the chair stated that a complete new ballot on the document would be proposed but the ballot pool would stay the same. A lot of discussion was held on this but the result was that the chair would use his judgement after having a discussion about this with the working group.

# 7.2. P260.1, IEEE Standard Letter Symbols for Units of Measurement (SI Units, Customary Inch-Pound Units, and Certain Other Units) Report: Randy Curey, Chair

This document was waiting for P280 to be completed as it shares front matter with P280. The working group will get formed and start to work on this document. The following individuals volunteered to be involved.

| Name          |
|---------------|
| Randy Curey   |
| Doug Edwards  |
| Peter Balma   |
| Howard Ressel |

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## 7.3. IEEE Std 260.3-1993 Mathematical signs and symbols for use in physical sciences and technology Report: Randy Curey

Randy Curey volunteered to move the existing PDF document into the new template. Michael Kipness stated that he was concerned about this being construed a starting a document without a current PAR. Gary Hoffman reiterated this as an issue. So Randy was cautioned.¹ However, it was stated that he could familiarize himself with the document in preparation to form a working group before the PAR was submitted.

## 7.4. IEEE Std 260.4-2018 American National Standard Letter Symbols and Abbreviations for Quantities Used in Acoustics

**Report: Gary Hoffman** 

Gary Hoffman reported since this project could not have been completed without the help of the Acoustical Society of America (ASA), he suggested that we might consider releasing this document to them for maintenance. IEEE does have an agreement with the ASA for joint publication of this document. He will contact Christopher Shruck, a member of ASA, to open this discussion.

# 7.5. P270-2006, IEEE Standard Definitions for Selected Quantities, Units, and Related Terms, with Special Attention to the International System of Units (SI) Report: Doug Edwards

This document is overdue to be started as it will expire in December, 2022. There is not a PAR for this nor a working group chair. A volunteer was sought to adopt this work. It was suggested this could also be rolled into the SI 10 revision and this should be considered.

### 7.6. P280-1985, IEEE Standard Letter Symbols for Quantities Used in Electrical Science and Electrical Engineering

**Report: Randy Curey** 

This document was balloted and a fair number of comments. However, it did receive a 93% acceptance rate. Most of the comments were editorial issues and grammatical corrections. Elizabeth Benham, NIST, was instrumental in this work. However, due to personal issues, Elizabeth may have to withdraw from this group. Michael Kipness was requested to determine who is our point of contact with NIST.

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<sup>1</sup> The SASB Bylaws state:

<sup>&</sup>quot;Standards Committees are required to submit a PAR at the earliest opportunity when a standards project is contemplated or work is started. The Secretary of the IEEE-SA Standards Board shall submit PARs to NesCom for approval in accordance with its procedures. Unless specifically authorized by the IEEE-SA Standards Board, no proposed standard or revision shall be considered by RevCom without prior approval of the project by the IEEE-SA Standards Board. The lifetime of a PAR shall be four years." Therefore, the interpretation of this is that the text can be copied and pasted into the template once the PAR is approved.

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## 7.7. P945, Recommended Practice for Preferred Metric Units for Use in Electrical and Electronics Science and Technology

**Report: Doug Edwards Old Business** 

There was no discussion on this except to point out that it would not expire until 2029 and we do not need to consider any revision at this time.

## 7.8. WG P947, IEEE Guide for Identification of Alternative Metric Devices for Valves, Fittings, Threads, Flanges Report: Stephen Shull

A great effort was made to get folks involved in this standard without any volunteers coming forth. After some discussion, it was determined that there was little or no interest in the IEEE community. A motion was made by Randy Curey to withdraw the PAR. This was seconded by Gary Hoffman. Hearing no objections, Doug declared it approved by consent. Michael Kipness will help in getting the Website pulled and removing the link in the Main SCC14 page.

## 7.9. WG SI 10, American National Standard for Metric Practice Standard approved 2016. Expires: Dec 31, 2026 Report: Edwards

Status: Next action five (5) years prior to expiration, thus 2021.

This document is a dual logo document with ASTM. Currently a working group chair is needed for this document. Michael Kipness will solicit interest from the IEEE membership as no one on SCC14 could commit the time to be the working group chair for the revision of this document. Michael will also determine our contact at ASTM. Doug volunteer to move this forward with the PAR application.

### 7.10. NIST Liaison Report Report: Elizabeth Benham

No report.

#### 8. Old Business

### 8.1. SCC14 Website Update Report: Doug Edwards

The Chair reported that the website has been created using the same URL. The minutes were moved from the private area of the old website and are now public. All GDPR issues had been resolved through redaction so as not to violate the IEEE GDPR policy.

### 8.2. IEEEMeetCentral Options Report: Edwards

The site has been set up as a document repository and all

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working group have folders. All SCC14 member have access.

### 8.3. Revised WG P&P Report: Doug Edwards

After some discussion, it was determined that the review of these should be made in conjunction with the SC P&Ps. A motion was made by Randy Curey to form a task force, headed by Peter Balma, to review the current documents to the AudCom model document for discrepancies or conflict and report back at the next meeting. This was seconded by Howard Ressel. Hearing no objections, Doug declared it approved by consent. Doug Edwards and Keith Flowers volunteered as Task Force members.

#### 9. New Business

### 9.1. Discussion on whether to revise the following IEEE Standards:

IEEE Std 260.3: American National Standard Mathematical Signs and Symbols for Use in Physical Sciences and Technology, and

IEEE Std 270: IEEE Standard Definitions for Selected Quantities, Units, and Related Terms, with Special Attention to the International System of Units (SI)

These standards need to be review with the possibility of being included into SI 10. It was brought up that the nature of SI 10 might not be the correct place to incorporate the symbols document. There was some discussion about this. Howard would send the last SI 10 membership to Doug Edwards.

### 9.2. Metric Association Liaison Report Report: Howard Ressel

Howard Ressel noticed that this report was missing. Since he was the liaison to the AMA, he wanted everyone to know that Lauran Young, past president of the Metric Association, and Paul Truston have passed away.

### 10. Next SCC14 Meeting Fall 2021

Steve Shull will send a doodle poll to establish a date and time for the next meeting. Targeted time for next meeting will be in late October or early November.

### 11. Adjournment

The meeting was adjourned at 5:45 PM EST.

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### **ANNEX A: Document Status**

|             |         |               |           |    |           |                     |  |           |            | Next Action    |            |            |            |              |                                 |
|-------------|---------|---------------|-----------|----|-----------|---------------------|--|-----------|------------|----------------|------------|------------|------------|--------------|---------------------------------|
| Active WG   | Project |               |           | WG | Project   |                     |  | Year      | Expiration | Date (3 years  | Approval   | Expiration | Invitation | Ballot Close |                                 |
| Action Item | Number  | Chair         | Secretary |    | Туре      | Committee           | Project Title                              | Published | Date       | b4 expiration) | PAR Date   | PAR Date   | Close Date | Date         | Project Status                  |
|             |         |               |           |    |           |                     | Chandand for Dueffice for                  |           |            |                |            |            |            |              |                                 |
| Active WG   | P1541   | Keith Flowers |           | 2  | Revision  | SASB/SCC14/SCC14.3  | Standard for Prefixes for Binary Multiples | 2002      | 2018/12/31 | Active WG      | 2016/09/22 | 2021/12/31 | 2018/05/24 | 2018/06/30   | SA Ballot: Comment Resolution   |
| Active vvd  | F1341   | Reith Flowers |           | 2  | REVISION  | 3A3B/3CC14/3CC14.3  | Standard Letter Symbols                    | 2002      | 2018/12/31 | Active WG      | 2010/03/22 | 2021/12/31 | 2018/03/24 | 2018/00/30   | SA Ballot. Comment Resolution   |
|             |         |               |           |    |           |                     | for Units of Measurement                   |           |            |                |            |            |            |              |                                 |
|             |         |               |           |    |           |                     | (SI Units, Customary Inch-                 |           |            |                |            |            |            |              |                                 |
|             |         |               | Doug      |    |           |                     | Pound Units, and Certain                   |           |            |                |            |            |            |              |                                 |
| Active WG   | P260.1  | Randy Curey   | Edwards   | ?  | Revision  | SASB/SCC14/SCC14.3  | Other Units)                               | 2004      | 2020/12/31 | Active WG      | 2016/09/22 | 2024/12/31 | NA         | NA           | Draft Development               |
|             |         | , ,           |           |    |           | , ,                 | Standard Letter Symbols                    |           |            |                | , ,        | , ,        |            |              | ·                               |
|             |         |               |           |    |           |                     | for Quantities Used in                     |           |            |                |            |            |            |              |                                 |
|             |         |               | Doug      |    |           |                     | Electrical Science and                     |           |            |                |            |            |            |              |                                 |
| Active WG   | P280    | Randy Curey   | Edwards   | 4  | Revision  | SASB/SCC14/P280_WG  | Electrical Engineering                     | 1982      | 2018/12/31 | Active WG      | 2016/09/22 | 2021/12/31 | 2020/03/18 | 2020/08/22   | SA Ballot: Recirculation Review |
|             |         |               |           |    |           |                     | Guide for Identification of                |           |            |                |            |            |            |              |                                 |
|             |         |               |           |    |           |                     | Alternative Metric                         |           |            |                |            |            |            |              |                                 |
|             |         |               |           |    |           |                     | Devices for Valves,                        |           |            |                |            |            |            |              |                                 |
| Active WG   | P947    | Stephen Shill |           | ?  | New       | SASB/SCC14/P947     | Fittings, Threads, Flanges                 |           |            |                | 2017/09/28 | 2021/12/31 | NA         | NA           | Draft Development               |
|             |         |               |           |    |           |                     | American National                          |           |            |                |            |            |            |              |                                 |
|             |         |               |           |    |           |                     | Standard Mathematical                      |           |            |                |            |            |            |              |                                 |
|             |         |               |           |    |           |                     | Signs and Symbols for Use                  |           |            |                |            |            |            |              |                                 |
| Need Chair  | 260.3   |               |           |    | New       | SASB/SCC14/ADMIN    | in Physical Sciences and Technology        | 1993      | 2022/12/31 | 2020/01/02     | NA         | NA         | NA         | NA           | Completed                       |
| Need Chair  | 200.5   |               |           |    | ivew      | SASB/SCC14/ADIVIIN  | Standard for Definitions                   | 1993      | 2022/12/31 | 2020/01/02     | INA        | IVA        | IVA        | INA          | Completed                       |
|             |         |               |           |    |           |                     | for Selected Quantities,                   |           |            |                |            |            |            |              |                                 |
|             |         |               |           |    |           |                     | Units, and Related Terms,                  |           |            |                |            |            |            |              |                                 |
|             |         |               |           |    |           |                     | with Special Attention to                  |           |            |                |            |            |            |              |                                 |
|             |         |               |           |    |           |                     | the International System                   |           |            |                |            |            |            |              |                                 |
| Need Chair  | 270     |               |           |    | Revision  | SASB/SCC14/P270 wg  | (SI)                                       | 2006      | 2022/12/31 | 2020/01/02     | 2002/09/12 | 2006/12/31 | NA         | NA           | Completed                       |
|             |         |               |           |    |           | , ,                 | Recommended Practice                       |           |            | , ,            | , ,        | , ,        |            |              | ·                               |
|             |         |               |           |    |           |                     | for Preferred Metric Units                 |           |            |                |            |            |            |              |                                 |
|             |         |               |           |    |           |                     | for Use in Electrical and                  |           |            |                |            |            |            |              |                                 |
|             |         |               |           |    |           |                     | Electronics Science and                    |           |            |                |            |            |            |              |                                 |
| NA - Future | 945     |               |           |    | Revision  | SASB/SCC14/P945_wg  | Technology                                 | 2019      | 2029/12/31 | 2027/01/02     | 2013/10/21 | 2019/12/31 | 2018/09/22 | 2018/11/25   | Completed                       |
|             |         |               |           |    |           |                     | American National                          |           |            |                |            |            |            |              |                                 |
|             |         |               |           |    |           |                     | Standard for Metric                        |           |            |                |            |            |            |              |                                 |
| Need Chair  | SI_10   |               |           |    | Revision  | SASB/SCC14tmp/ADMIN | Practice                                   | 2016      | 2026/12/31 | 2024/01/02     | 2015/06/11 | 2019/12/31 | 2015/12/02 | 2016/02/26   | Completed                       |
|             |         |               |           |    |           |                     | Standard Letter Symbols                    |           |            |                |            |            |            |              |                                 |
|             |         |               |           |    |           |                     | and Abbreviations for                      |           |            |                |            |            |            |              |                                 |
| NA Fort     | 260.4   |               |           |    | Davidata. | CACD/CCC44/D2C0.4   | Quantities Used in                         | 2040      | 2020/42/24 | 2025/04/62     | 2016/00/22 | 2020/42/24 | 2040/02/22 | 2040/00/02   | Commission                      |
| NA - Future | 260.4   |               |           |    | Kevision  | SASB/SCC14/P260.4   | Acoustics                                  | 2018      | 2028/12/31 | 2026/01/02     | 2016/09/22 | 2020/12/31 | 2018/03/23 | 2018/08/02   | Completed                       |

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