

**N C W M
PUBLICATION**

16

COMMITTEE REPORTS
FOR THE
108th ANNUAL MEETING

Norfolk, Virginia / July 28-August 03, 2023

Prepared in Cooperation with the National Conference on Weights and Measures, National Type Evaluation Program, National Institute of Standards and Technology Office of Weights and Measures, Central Weights and Measures Association, Northeastern Weights and Measures Association, Southern Weights and Measures Association and Western Weights and Measures Association.



National Conference on Weights and Measures Overview

National Conference on Weights and Measures (NCWM), Inc. is a standards development organization for weights and measures regulatory agencies of the states, counties, and cities of the United States, as well as for federal agency use. The Annual Meeting brings together government officials and representatives of business, industry, trade associations, and consumer organizations for the purpose of hearing and discussing subjects that relate to the field of weights and measures technology and administration.

The programs of NCWM and its committees explore the broad area of this economically important segment of governmental regulatory service. NCWM develops and recommends laws and regulations, technical codes for weighing and measuring devices used in commerce, test methods, enforcement procedures, and administrative guidelines for adoption by regulatory agencies in the interest of promoting uniformity of requirements and methods among state and local jurisdictions.

A major objective of NCWM is to foster understanding and cooperation among weights and measures officials and all industrial, business, and consumer interests. NCWM has been cited on numerous occasions for its outstanding success.

The National Institute of Standards and Technology (NIST) have statutory responsibility for "cooperation with the states in securing uniformity of weights and measures laws and methods of inspection."

Opinions expressed in submitted documents are those of the authors and not necessarily those of NCWM. Contributors are solely responsible for the content and quality of their material.

Mahesh Albuquerque, NCWM Chair
Colorado



Dear NCWM Colleagues,

Welcome to the 108th NCWM Annual Meeting in Norfolk, Virginia. It is great to be meeting in the heart of the city's charming downtown district, just moments from the USS Wisconsin and cruises on the Spirit of Norfolk.

It is great to have such good attendance at this meeting, and I hope you actively engage during the open hearings, learn something new during technical presentations, and take the time to meet someone new at this meeting. For some of you, I suspect this may be your first NCWM Annual meeting, so a quick overview of what happens here might be helpful.

In addition to the committee agenda reviews, there are several meetings on Sunday that I would encourage you to attend. These include the Meter Manufacturers Association, Packaging and Labeling Subcommittee, Cannabis Task Group, Fuels and Lubricants Subcommittee, Strategic Plan Discussion, and this year we are hosting the Community for All Legal Metrologists (CALM) meeting. I hope to see you at the Chairman's Reception on Sunday evening.

The Open Hearings begin on Monday, and NCWM Publication 16, which you are holding, serves as the agenda for the NCWM Annual Meeting. As you can see from the number of items on the agenda, this is truly a working standards development meeting, especially for the Standing Committee Members who, after hearing testimony in the Open Hearings on Monday and Tuesday, will go into their respective Committee Work Sessions to update and refine the status of their agenda items. The General Session on Tuesday afternoon will be special and historic, with addresses from many distinguished guests. On Tuesday afternoon, we will have a special session on Women in Weights and Measures that I hope you attend. On Wednesday afternoon, the Standing Committees will present their agendas for members to vote on amendments to the standards. Items that pass are adopted in the 2024 edition of Handbooks 44, 130, and 133. At Wednesday evening's Special Event, you can wind down and relax at a South Pacific Luau at the Military Aviation Museum.

As your Chairman, once again, I had the opportunity to attend all four regional association meetings and witness the talent and dedication of weights and measures officials across the country. I was especially encouraged to meet some amazing inspectors and administrators, some of who were attending their first regional meeting. I am sure many will be future leaders within their organizations and at the NCWM. Even if you are not a committee member, I encourage you to review the [2023 Committee Handbook](#) before attending the Annual Meeting. It will give you a deeper insight and appreciation for the NCWM Standard Development Process.

At this NCWM Annual Meeting, you will also hear more about the NCWM Strategic Plan, the updated Memorandum of Understanding with NIST OWM and my theme for this year: Collaborating with partners and stakeholders for a greater measure of equity. I am very optimistic about the future of NCWM. As the marketplace continues to evolve, I believe we are poised to be agile and innovative as we experiment and try new things.

My sincere thanks to our NCWM staff, the NCWM Board of Directors, every Standing Committee member, and everyone here who volunteers their time and talent to help make this 108th NCWM Annual Meeting successful. I look forward to visiting with you in Norfolk. Safe travels!

A handwritten signature in black ink, appearing to read 'Mahesh Albuquerque'.

Mahesh Albuquerque

NCWM Chairman

Table of Contents

| Title | Page |
|--|------------|
| Schedule of Events | iii |
| Organization Chart | vii |
| Past Chairmen | xix |
| General Information..... | GEN – 1 |
| Purpose | GEN – 1 |
| Supporting Documents | GEN – 1 |
| Items Grouped into Blocks | GEN – 1 |
| Designation of Item Status..... | GEN – 1 |
| Addendum Sheets | GEN – 2 |
| Voting System | GEN – 2 |
| Written Comments or Oral Statements | GEN – 3 |
| Participation | GEN – 3 |
| Reports | GEN – 3 |
| Interim Meeting | GEN – 4 |
| Units of Measurement..... | GEN – 4 |
| Board of Directors | BOD – 5 |
| Laws and Regulations Committee..... | L&R – 93 |
| Specifications and Tolerances Committee..... | S&T – 217 |
| Professional Development Committee | PDC – 469 |
| National Type Evaluation Program Committee | NTEP – 495 |
| Nominating Committee | NOM – 521 |

Table of Contents

108th NCWM Annual Meeting

Schedule of Events

(The schedule of events is tentative and subject to change.)

**Committee hearings will occur in the order presented below. Times of each hearing are not firm; when one committee finishes, the next committee will begin. Committee chairs reserve the right to group items and select their sequence for presentation on voting. There will be no break between committee reports; registrants should plan to attend an entire Voting Session to ensure their presence when items of interest are likely to be under consideration.*

| Sunday, July 30, 2023 | | |
|------------------------------|---|-------------------------------------|
| 8:00 a.m. – 9:30 a.m. | Coffee Service | Norfolk Foyer |
| 8:00 a.m. – 5:00 p.m. | Registration and Exhibits | Norfolk Foyer |
| 8:00 a.m. – 9:00 a.m. | SWMA Member Education and Mentorship Presentation | Norfolk III and IV |
| 8:30 a.m. – 12:00 p.m. | Meter Manufacturer Association | Norfolk I |
| 9:00 a.m. – 11:30 a.m. | Packaging and Labeling Subcommittee | Norfolk II |
| 9:00 a.m. – 11:30 a.m. | Cannabis Task Group | Norfolk V |
| 9:00 a.m. – 11:30 a.m. | Community for All Legal Metrologists (CALM) | Franklin (2 nd Floor) |
| 11:30 a.m. – 1:00 p.m. | Lunch on Your Own | |
| 1:00 p.m. – 3:30 p.m. | Fuels and Lubricants Subcommittee | Norfolk III and IV |
| 1:00 p.m. – 3:30 p.m. | TBD | Norfolk II |
| 1:00 p.m. – 3:30 p.m. | Strategic Plan Discussion | Norfolk V |
| 1:00 p.m. – 3:30 p.m. | Community for All Legal Metrologists (CALM) | Franklin (2 nd Floor) |
| 3:30 p.m. – 4:00 p.m. | Joint Committee Meeting | Norfolk III and IV |
| 4:00 p.m. – 5:00 p.m. | Agenda Review | |
| | Professional Development Committee | Norfolk I |
| | Specifications and Tolerances Committee | Norfolk II |
| | Laws and Regulations Committee | Norfolk V |
| | Board of Directors / NTEP Committee | Franklin (2 nd Floor) |
| 5:30 p.m. – 7:00 p.m. | Chairman's Reception | Marriott IV (4 th Floor) |

Schedule of Events

| Monday, July 31, 2023 | | Room |
|------------------------------|--|--|
| 7:00 a.m. – 9:00 a.m. | Light Breakfast | Norfolk Foyer |
| 7:00 a.m. – 5:00 p.m. | Registration and Exhibits | Norfolk Foyer |
| 8:00 a.m. – 8:30 a.m. | New Attendee Orientation Mr. Chris Guay, CCGT Resources | Norfolk III and IV |
| 8:30 a.m. – 12:00 p.m. | Official Session – Open Hearings Presiding Officer: Mr. David Fraser, Montana Specifications and Tolerances Committee Laws and Regulations Committee NTEP Committee Board of Directors | Norfolk III and IV |
| 12:00 p.m. – 1:30 p.m. | Lunch on Your Own | |
| 1:30 p.m. – 5:00 p.m. | Official Session – Open Hearings Continued | Norfolk III and IV |
| 1:30 p.m. – 5:00 p.m. | Committee Work Sessions (To be announced) Professional Development Committee Specifications and Tolerances Committee Laws and Regulations Committee Board of Directors / NTEP Committee | Norfolk I Norfolk II Norfolk V Franklin (2 nd Floor) |

| Tuesday, August 1, 2023 | | |
|--------------------------------|--|--|
| 7:00 a.m. – 9:00 a.m. | Light Breakfast | Norfolk Foyer |
| 7:00 a.m. – 5:00 p.m. | Registration and Exhibits | Norfolk Foyer |
| 8:00 a.m. – 9:45 a.m. | Official Session – Open Hearings (continued as necessary) Presiding Officer: Ms. Cheryl Ayer, New Hampshire | Norfolk III and IV |
| 9:45 a.m. – 10:00 a.m. | Break | |
| 10:00 a.m. – 12:00 p.m. | General Session Pledge of Allegiance and Invocation Chaplain: Mr. Scott Simmons, Colorado Welcome Address Speaker: Joseph Guthrie Commissioner of the Virginia Department of Agriculture and Consumer Services Honorary President's Address Dr. Laurie Locascio, NIST Director (Tentative) NASDA Address Ted McKinney, NASDA CEO (Tentative) Chairman's Address Mr. Mahesh Albuquerque, Colorado Awards Ceremony | Norfolk III and IV |
| 12:00 p.m. – 1:30 p.m. | Lunch on Your Own | |
| 1:30 p.m. – 5:00 p.m. | Committee Work Sessions Professional Development Committee Specifications and Tolerances Committee Laws and Regulations Committee Board of Directors / NTEP Committee | Norfolk I Norfolk II Norfolk V Franklin (2 nd Floor) |
| 1:30p.m. – 2:30 p.m. | NCWM Chairman's Report Mr. Mahesh Albuquerque | Norfolk III and IV |
| 3:00p.m. – 4:30 p.m. | Women in Weights and Measures | Norfolk III and IV |
| 8:00 p.m. | Addendum Sheets Available Registration Area | Norfolk Foyer |

Schedule of Events

| Wednesday, August 2, 2023 | | |
|---------------------------|--|----------------------------------|
| 7:00 a.m. – 9:00 a.m. | Light Breakfast | Norfolk Foyer |
| 7:00 a.m. – 3:00 p.m. | Registration and Exhibits | Norfolk Foyer |
| 8:00 a.m. – 9:00 a.m. | Associate Membership Committee | Norfolk III and IV |
| 9:00 a.m. – 12:00 p.m. | Regional Association Meetings | |
| | Central Weights and Measures Association | Norfolk I |
| | Northeastern Weights and Measures Association | Norfolk II |
| | Southern Weights and Measures Association | Norfolk V |
| | Western Weights and Measures Association | Franklin (2 nd Floor) |
| 12:00 p.m. – 1:00 p.m. | Lunch on Your Own | |
| 1:00 p.m. – 4:30 p.m. | Voting Session | Norfolk III and IV |
| | Presiding Officer: Mr. Tim Chesser, Arkansas | |
| | Parliamentarian: Mr. Chuck Corr, Chuck Corr Consulting | |
| | Professional Development Committee | |
| | Specifications and Tolerances Committee | |
| | Laws and Regulations Committee | |
| 5:45 p.m. – 9:30 p.m. | Special Event: South Pacific Luau at the Military Aviation Museum | |
| | Join us for this all-inclusive evening where you will see a flight show during happy hour. Then enjoy your dinner followed by dueling pianos. Transportation provided. | |
| Thursday, August 3, 2023 | | |
| 7:30 a.m. – 9:00 a.m. | Light Breakfast | Norfolk Foyer |
| 7:30 a.m. – 10:00 a.m. | Registration and Exhibits | Norfolk Foyer |
| 9:00 a.m. – 12:00 p.m. | Voting Session (continued as necessary) | Norfolk III and IV |
| | Presiding Officer: Mr. Mike Harrington, Iowa | |
| | Parliamentarian: Mr. Chuck Corr, Chuck Corr Consulting | |
| | NTEP Committee | |
| | Board of Directors | |
| | Nominating Committee | |
| | Closing Ceremony | Norfolk III and IV |
| | Passing of the Gavel / New Chairman’s Address | |
| | Benediction / Adjourn | |

2022-2023 Organization Chart

NCWM Board of Directors

| Office | Name | Affiliation | Term Ends |
|----------------------------------|---------------------|--------------------------------------|-----------|
| Chairman | Mahesh Albuquerque | Colorado | 2023 |
| Chairman-Elect | Gene Robertson | Mississippi | 2023 |
| Immediate Past Chair | Ivan Hankins | Iowa | 2023 |
| Treasurer | Craig VanBuren | Michigan | 2023 |
| Active Membership - Western | Kevin Schnepf | California | 2027 |
| Active Membership - Southern | Hal Prince | Florida | 2023 |
| Active Membership - Northeastern | Marc Paquette | Vermont | 2024 |
| Active Membership - Central | Daniel Walker | Ohio | 2025 |
| At-Large | Rebecca Richardson | MARC-IV Consulting | 2023 |
| At-Large | Dr. Matthew Curran | Florida | 2026 |
| Associate Membership | Chris Guay | CGGT | 2025 |
| Honorary NCWM President | Dr. Laurie Locascio | NIST Director | NA |
| Executive Director | Don Onwiler | NCWM | NA |
| Executive Secretary | Dr. Katrice Lippa | NIST, Office of Weights and Measures | NA |
| NTEP Administrator | Darrell Flocken | NCWM | NA |
| Measurement Canada Advisor | Erica Garnier | Measurement Canada | NA |

National Type Evaluation Program (NTEP) Committee

| Office | Name | Affiliation | Term Ends |
|--------------------|--------------------|-------------|-----------|
| Committee Chair | Ivan Hankins | Iowa | 2023 |
| NTEP Administrator | Darrell Flocken | NCWM | NA |
| Members | Mahesh Albuquerque | Colorado | 2024 |
| | Marc Paquette | Vermont | 2024 |
| | Gene Robertson | Mississippi | 2025 |
| | Kevin Schnepf | California | 2027 |

Finance Committee

| Office | Name | Affiliation | Term Ends |
|--------------------------|----------------|-------------|-----------|
| Committee Chair | Gene Robertson | Mississippi | 2023 |
| Nominated Chairman-Elect | Marc Paquette | Vermont | 2024 |
| Treasurer | Craig VanBuren | Michigan | 2023 |
| AMC Representative | Chris Guay | CGGT | 2025 |
| Executive Director | Don Onwiler | NCWM | NA |

Organization Chart

Laws and Regulations Committee (L&R)

| Office | Name | Affiliation | Term Ends |
|----------------------------|------------------------|--------------------------------------|-----------|
| Chair | Doug Rathbun | Illinois | 2023 |
| Vice-Chair | Mike Brooks | Arizona | 2024 |
| Members | Tory Brewer | West Virginia | 2025 |
| | Mauricio Mejia | Florida | 2026 |
| | Walter Remmert | Pennsylvania | 2027 |
| AMC Representative | Prentiss Searles | API | 2023 |
| Canadian Technical Advisor | Rowan Hemsing | Measurement Canada | NA |
| NIST Technical Advisors | John McGuire | NIST, Office of Weights and Measures | NA |
| | Lisa Warfield | NIST, Office of Weights and Measures | NA |
| Committee Coordinator | Constantine Cotsoradis | NCWM | NA |

Professional Development Committee (PDC)

| Office | Name | Affiliation | Term Ends |
|--|-----------------|--------------------------------------|-----------|
| Chair | Paul Floyd | Louisiana | 2024 |
| Vice-Chair | Ethan Bogren | Westchester County, New York | 2025 |
| Members | Scott Ferguson | Michigan | 2023 |
| | Scott Simmons | Colorado | 2026 |
| AMC Representative | James Pettinato | TechnipFMC | 2023 |
| Safety Liaison | John Bell | Missouri | NA |
| NIST Liaison | Tina Butcher | NIST, Office of Weights and Measures | NA |
| Professional Certification Coordinator | Jerry Buendel | Retired | NA |

Specifications and Tolerances Committee (S&T)

| Office | Name | Affiliation | Term Ends |
|----------------------------|-----------------|--------------------------------------|-----------|
| Chair | Jason Glass | Kentucky | 2023 |
| Vice-Chair | Nick Owens | Stark County, Ohio | 2024 |
| Members | David Aguayo | San Luis Obispo, California | 2026 |
| | Jason Flint | New Jersey | 2025 |
| | James Willis | New York | 2027 |
| Canadian Technical Advisor | Éric Turcotte | Measurement Canada | NA |
| NIST Technical Advisors | Loren Minnich | NIST, Office of Weights and Measures | NA |
| | Juana Williams | NIST, Office of Weights and Measures | NA |
| NCWM Technical Advisors | Jeff Gibson | NCWM | NA |
| | Allen Katalinic | NCWM | NA |
| Committee Coordinator | Greg Gholston | Mississippi | NA |

Nominating Committee

| Office | Name | Affiliation | Term Ends |
|---------|------------------|--------------------------------|-----------|
| Chair | Ivan Hankins | Iowa | 2023 |
| Members | Cheryl Ayer | New Hampshire | 2023 |
| | Stephen Benjamin | North Carolina | 2023 |
| | Kurt Floren | Los Angeles County, California | 2023 |
| | Hal Prince | Florida | 2023 |
| | Gene Robertson | Mississippi | 2023 |

Credentials Committee

| Office | Name | Affiliation | Term Ends |
|-------------|-----------------|-------------------------------|-----------|
| Chair | Angel Nazario | City of Boston, Massachusetts | 2023 |
| Coordinator | Darrell Flocken | NCWM | NA |
| Members | Bryan Snodgrass | West Virginia | 2024 |
| Member | Aaron Yanker | Colorado | 2025 |

Appointed Officials

| Office | Name | Affiliation | Term Ends |
|--------------------|-----------------|-----------------------|-----------|
| Chaplain | Scott Simons | Colorado | 2023 |
| Parliamentarian | Chuck Corr | Chuck Corr Consulting | 2023 |
| Presiding Officers | Cheryl Ayer | New Hampshire | 2023 |
| | Tim Chesser | Arkansas | 2023 |
| | David Fraser | Montana | 2023 |
| | Mike Harrington | Iowa | 2023 |
| Sergeants-at-Arms | Steve Garman | Virginia | 2023 |
| | Duane Lam | Virginia | 2023 |

Associate Membership Committee (AMC)

| Office | Name | Affiliation | Term Ends |
|------------|------------------|------------------------|-----------|
| Chair | Bill Callaway | Crompco | 2023 |
| Vice-Chair | Jim Pettinato | TechnipFMC | 2024 |
| Secretary | Kristy Moore | KMoore Consulting, LLC | 2027 |
| Treasurer | Brent Price | Gilbarco, Inc. | 2022 |
| Members | David Boykin | NCR Corporation | 2027 |
| | David Calix | NCR Corporation | 2023 |
| | Christopher Guay | CGGT | 2027 |
| | Bob Murnane | Seraphin Test Measure | 2023 |

Fuels and Lubricants Subcommittee (FALS)

| Office | Name | Affiliation |
|------------------------|--------------------|---|
| Chair | Vanessa Benchea | Florida |
| Vice-Chairs | Ron Hayes | Retired |
| | Randy Jennings | R Jennings |
| Secretary | Rebecca Richardson | MARC-IV Consulting |
| NIST Technical Advisor | David Sefcik | NIST, Office of Weights and Measures |
| NIST Technical Advisor | Lisa Warfield | NIST, Office of Weights and Measures |
| Advisory Member | Curtis Williams | Retired |
| Public Sector Members | Mahesh Albuquerque | Colorado |
| | David Au | Georgia |
| | Stephen Benjamin | North Carolina |
| | David Deroche | Louisiana |
| | Mike Harrington | Iowa |
| | Steve Harrington | Oregon |
| | Allan Morrison | California |
| | Doug Rathbun | Illinois |
| | Kevin Schnepf | California |
| | Bill Striejewski | Nevada |
| | Kevin Upschulte | Missouri |
| | Timothy White | Michigan |
| | Michelle Wilson | Arizona |
| Private Sector Members | Holly Alfano | Independent Lubricant Manufacturers Association |

Organization Chart

| | |
|-------------------|--|
| Teresa Alleman | Holly Energy |
| Dale Bohn | Flint Hills Resources, LP |
| Scott Boorse | PEI |
| Frank Bradley | ET Products LLC |
| Chuck Corr | Chuck Corr Consulting |
| Kelly Davis | Renewable Fuels Association |
| Jacki Fee | Cargill |
| Scott Fenwick | Clean Fuels Alliance America |
| Rick Fragnito | Shell |
| Jennifer Green | CITGO Petroleum Corporation |
| Marilyn Herman | Herman and Associates |
| Joanna Johnson | Automotive Oil Change Association |
| Brian Kernke | Loves Travel Stops |
| David A. Kovach | BP Products |
| Michael Kunselman | Center for Quality Assurance |
| Robert Legg | Southwest Research |
| Russ Lewis | Marathon Petroleum, LLC |
| Shailesh Lopes | General Motors |
| Kristi Moore | KMoore Consulting, LLC |
| Jeanelle Morris | Navistar, Inc. |
| Jim Rocco | Petroleum Marketers Association of America |
| Prentiss Searles | API |
| Matthew Sheehan | Chevron USA, Inc. |
| Dr. Prasad Tumati | Haltermann Solutions |

Packaging and Labeling Subcommittee (PALS)

| Office | Name | Affiliation |
|------------------------|----------------|--------------------------------------|
| Chair | Chris Guay | CGGT |
| NIST Technical Advisor | John McGuire | NIST, Office of Weights and Measures |
| Public Sector Members | Hal Prince | Florida |
| | Nicholas Owens | Stark County, Ohio |
| Private Sector Member | Ann Boeckman | Kraft Food Group, Inc. |

Safety Subcommittee

| Office | Name | Affiliation |
|------------------------|----------------|---|
| Chair | John Bell | Missouri |
| Public Sector Members | Jason Flint | New Jersey |
| | David Fraser | Montana |
| Private Sector Members | Tisha Arriaga | Marathon Petroleum, LLC |
| | Bill Callaway | Crompco |
| | Remy Cano | Northwest Tank and Environmental Services |
| | Robert LaGasse | Mulch and Soil Council |

Policy and Bylaw Review Task Group

| Office | Name | Affiliation |
|------------------------|--------------------|-----------------------|
| Chair | Chris Guay | CGGT |
| Executive Director | Don Onwiler | NCWM |
| Public Sector Member | Maresh Albuquerque | Colorado |
| | Ivan Hankins | Iowa |
| Private Sector Members | Chuck Corr | Chuck Corr Consulting |

Cannabis Task Group

| Office | Name | Affiliation |
|------------------------|--------------------|--|
| Co-Chairs | Charles Rutherford | CPR Squared, Inc. |
| | Vince Wolpert | Arizona |
| Public Sector Members | Brad Bachelder | Maine |
| | Kipp Blauer | Nevada |
| | Ethan Bogren | Westchester County, NY |
| | James Cassidy | Massachusetts |
| | Tim Chesser | Arkansas |
| | Mark Ciociolo | City of Worcester, Massachusetts |
| | Dr. Matthew Curran | Florida |
| | David Farmer | Delaware Department of Agriculture |
| | Jason Flint | New Jersey |
| | Kurt Floren | Los Angeles County, California |
| | Paul Floyd | Louisiana |
| | Elaine Grillo | City of Boston, Massachusetts |
| | Ivan Hankins | Iowa |
| | Mike Harrington | Iowa |
| | Steven Harrington | Oregon |
| | Kristin Macey | California |
| | Mauricio Mejia | Florida |
| | Randall Morrison | Erie County, New York |
| | Angel Nazario | City of Boston, Massachusetts |
| | Josh Nelson | Oregon |
| | Laurence Nolan | Retired |
| | Ken Ramsburg | Maryland |
| | William Rigby | Utah |
| | Louis Sakin | Towns of Holliston, Hopkinton, Northbridge, MA |
| | Kate Smetana | Colorado |
| | Dedrick Stephens | City of Cleveland, Ohio |
| | Ron Valinski | City of Worcester, Massachusetts |
| | Craig VanBuren | Michigan |
| | Lisa Warfield | NIST, Office of Weights and Measures |
| | James Willis | New York |
| | Michelle Wilson | Arizona |
| | Aaron Yanker | Colorado |
| Private Sector Members | Michael Bronstein | ATACH |
| | Brian Duncan | Field Laboratory Seven, LLC |
| | Evan Foisy | A&D Engineering, Inc. |
| | Chris Guay | CGGT |
| | Joanna Johnson | Johnson Policy Associates, Inc. |
| | Chuck Olivier | DBS |
| | Ben Raham | WIPOTEC-OCS, Inc. |

Promotional Toolkit Task Group

Organization Chart

| Office | Name | Affiliation |
|-----------------------|------------------|--------------------------------|
| Chair | Stephen Benjamin | North Carolina |
| Public Sector Members | Jerry Buendel | Retired |
| | Kurt Floren | Los Angeles County, California |
| Private Sector Member | Bill Callaway | Cromptco |

Credit Card Skimmer Education Task Group

| Office | Name | Affiliation |
|------------------------|-----------------|--------------------------------------|
| Co-Chairs | Vacant | |
| | Vacant | |
| Public Sector Members | Bobby Fletcher | Louisiana |
| | Mike Harrington | Iowa |
| | John Larkin | California |
| | John McGuire | NIST, Office of Weights and Measures |
| Private Sector Members | Scott Boorse | PEI |
| | Owen DeWitt | FlintLoc Technologies, LLC |
| | Brent Price | Gilbarco, Inc. |
| | Mike Roach | PDI |
| | Scott Schober | Berkley Varitronics Systems |

Field Standards Task Group

| Office | Name | Affiliation |
|------------------------|--------------------|--------------------------------------|
| Chair | Vacant | |
| NIST Technical Advisor | G. Diane Lee | NIST, Office of Weights and Measures |
| Public Sector Members | Brad Bachelder | Maine |
| | Josh Nelson | Oregon |
| | Greg Vander Plaats | Minnesota |
| Private Sector Members | Michael Keilty | Endress + Hauser Flowtec AG, USA |
| | Henry Oppermann | Weights and Measures Consulting, LLC |

Verification Scale Division (e) Task Group

| Office | Name | Affiliation |
|----------------------------|------------------|--------------------------------------|
| Chair | Vacant | Kansas |
| NTEP Technical Advisor | Darrell Flocken | NCWM |
| NIST Technical Advisor | Jan Konijnenburg | NIST, Office of Weights and Measures |
| Canadian Technical Advisor | Éric Turcotte | Measurement Canada |
| Public Sector Members | Steve Timar | New York |
| | Howard Tucker | Florida |
| Private Sector Member | Evan Foisy | A&D Engineering, Inc. |
| | Doug Musick | USDA |
| | Chuck Olivier | DBS |
| | Richard Suiter | Richard Suiter Consulting |
| At-Large Members | Ross Andersen | Retired |
| | Steve Cook | Retired |

Milk Meter Tolerance Task Group

| Office | Name | Affiliation |
|----------------------------|-------------------|--------------------------------------|
| Chair | Vacant | |
| NTEP Technical Advisor | Allen Katalinic | NCWM |
| NIST Technical Advisor | G. Diane Lee | NIST, Office of Weights and Measures |
| Canadian Technical Advisor | Éric Turcotte | Measurement Canada |
| Public Sector Members | Mitchell Marsalis | Louisiana |
| | Jim Willis | New York |
| | Aaron Yanker | Colorado |
| Private Sector Member | Carey McMahon | Poul Tarp A/S |

NTEP MDMD Work Group

| Office | Name | Affiliation |
|----------------------------|-------------------|--|
| Chair | Chris Senneff | Avery Weigh-Tronix |
| NTEP Technical Advisor | Darrell Flocken | NCWM |
| | Jeff Gibson | NCWM |
| NIST Technical Advisor | Loren Minnich | NIST, Office of Weights and Measures |
| Canadian Technical Advisor | Joshua Foster | Measurement Canada |
| | Pascal Turgeon | Measurement Canada |
| Public Sector Members | Tom Buck | Ohio |
| Private Sector Members | Sprague Ackley | Digimarc |
| | Jeff Cooper | National Motor Freight Traffic Association |
| | Scott Davidson | Mettler-Toledo, LLC |
| | Brandi Harder | Rice Lake Weighing Systems, Inc. |
| | Scott Henry | Zebra Technologies |
| | Robert Kennington | Cubiscan |
| | Kyle Messerly | Rice Lake Weighing Systems, Inc. |
| | Don Newell | Newell Enterprises |
| | Sameer Parmar | SICK, Inc. |
| | Phil Peterson | SICK, Inc. |
| | Tony Romeo | Datalogic |
| | Michael Stutler | UPS |
| | Richard Suiter | Richard Suiter Consulting |
| | Matthew Walz | Walz Scale |
| | Scott Wigginton | United Parcel Service |

NTEP EVSE Work Group

| Office | Name | Affiliation |
|------------------------|-------------------|--------------------------------------|
| Chair | Andrei Moldoveanu | NEMA |
| NTEP Administrator | Darrell Flocken | NCWM |
| NTEP Technical Advisor | Jeff Gibson | NCWM |
| NIST Technical Advisor | Juana Williams | NIST, Office of Weights and Measures |
| Public Sector Members | Tom Buck | Ohio |
| | Alison Wilkinson | Maryland Department of Agriculture |
| Private Sector Members | Keith Bradley | Squire Patton Boggs |
| | William Hardy | Power Measurements LLC |
| | Liam O'Brien | EverCharge |
| | Dave Parmelee | Control Module, Inc. |
| | Ryan Powers | EV Range |
| | Francesca Wahl | Tesla |

Organization Chart

NTEP Grain Analyzer Sector

| Office | Name | Affiliation |
|------------------------|-----------------------|---|
| Chair | Karl Cunningham | Illinois |
| NTEP Administrator | Darrell Flocken | NCWM |
| NTEP Technical Advisor | Jeff Gibson | NCWM |
| NIST Technical Advisor | G. Diane Lee | NIST, Office of Weights and Measures |
| Advisory Member | Cassie Eigenmann | Retired |
| Public Sector Members | Tina Butcher | NIST, Office of Weights and Measures |
| | Ivan Hankins | Iowa |
| | April Jones | North Carolina |
| | Jason Jordan | USDA, FGIS, Technical Services Division |
| Private Sector Members | Jeffrey Adkisson | Grain and Feed Association of Illinois |
| | Rachel Beiswenger | TSI Incorporated |
| | Martin Clements | The Steinlite Corporation |
| | Casey Frakes | The Steinlite Corporation |
| | Andrew Gell | Foss North America |
| | Charles Hurburgh, Jr. | Iowa State University |
| | Jess McCluer | National Grain and Feed Association |
| | Thomas Runyon | Seedburo Equipment Co. |

NTEP Measuring Sector

| Office | Name | Affiliation |
|------------------------|------------------------|--|
| Chair | Michael Keilty | Endress + Hauser Flowtec AG, USA |
| NTEP Administrator | Darrell Flocken | NCWM |
| NTEP Technical Advisor | Allen Katalinic | NCWM |
| | Jeff Gibson | NCWM |
| NIST Technical Advisor | G. Diane Lee | NIST, Office of Weights and Measures |
| Public Sector Members | Julie Burbridge | California |
| | Hunter Hairr | North Carolina |
| | Pierre LeBlanc | Measurement Canada |
| | Louis Martinet | Measurement Canada |
| | Chad Parker | North Carolina |
| | Randy Ramsey | North Carolina |
| | Alison Wilkinson | Maryland Department of Agriculture |
| Private Sector Members | Steve Bar | Bennett Pump Company |
| | Marc Buttler | Emerson / Micro Motion |
| | Craig Cavanaugh | Tuthill Transfer Systems |
| | Rodney Cooper | Consultant |
| | Constantine Cotsoradis | Measurement and Metrology Strategies LLC |
| | Treyton Drake | Advanced Flow Solutions, Inc. dba Corken |
| | Ronnell Gallon | Zenner Performance Meters, Inc. |
| | John Hathaway | Murray Equipment |
| | Dmitri Karimov | Liquid Controls, LLC |
| | Douglas Long | RDM Industrial Electronics |
| | Mark McMurtrey | Dover Fueling Solutions |
| | Richard Miller | FMC Technologies Measurement Solutions, |
| | Randy Moses | Wayne Fueling Systems |
| | Andre Noel | Neptune Technology Group, Inc. |
| | Robin Parsons | Parafour Innovations, LLC |
| | Brent Price | Gilbarco, Inc. |

NTEP Software Sector

| Office | Name | Affiliation |
|------------------------|-------------------|--|
| Chair | Jim Pettinato | Technip FMC |
| NTEP Administrator | Darrell Flocken | NCWM |
| NTEP Technical Advisor | Jeff Gibson | |
| NIST Technical Advisor | Jan Konijnenburg | NIST, Office of Weights and Measures |
| Secretary | Teri Gulke | Liquid Controls, LLC |
| Public Sector Members | Tom Buck | Ohio |
| | Julie Burbridge | |
| | Katya Delak | NIST, Office of Weights and Measures |
| | Steve Harrington | Oregon |
| Private Sector Members | Mary Abens | Emerson Process Management |
| | Kevin Detert | Avery Weigh-Tronix |
| | Andrew Gell | Foss North America |
| | Dion Harste | AgCode, Inc. |
| | Dominic Meyer | KSi Conveyors, Inc. |
| | Richard Miller | FMC Technologies Measurement Solutions, Inc. |
| | Christopher Odham | Target |
| | Ryan Powers | EV Range |
| | Mike Roach | PDI |
| | David Vande Berg | Vande Berg Scales |
| | John Wind | Ossid LLC |
| | Kraig Wooddell | Hobart |

Organization Chart

NTEP Weighing / Belt-Conveyor Sector

| Office | Name | Affiliation |
|------------------------|--------------------|--------------------------------------|
| Co-Chairs | Jessica Ferree | Mettler-Toledo, LLC |
| | Peter Sirrico | Thayer Scale / Hyer Industries |
| NTEP Administrator | Darrell Flocken | NCWM |
| NTEP Technical Advisor | Jeff Gibson | NCWM |
| NIST Technical Advisor | Jan Konijnenburg | NIST, Office of Weights and Measures |
| Advisory Member | Robert Feezor | Retired |
| Public Sector Members | Tom Buck | Ohio |
| | Kevin Chesnutwood | NIST, Mass and Force Group |
| | Nathan Gardner | Oregon |
| | Steve Harrington | Oregon |
| | Robert Meadows | Kansas |
| | Loren Minnich | NIST, Office of Weights and Measures |
| | Pascal Turgeon | Measurement Canada |
| Private Sector Members | Steven Beitzel | Systems Associates, Inc. |
| | Scott Davidson | Mettler-Toledo, LLC |
| | Tom Dorward | Mettler Toledo North America |
| | Mitchell Eyles | Flintec, Inc. |
| | Andrew Goddard | Marel, Ltd. |
| | Brandi Harder | Rice Lake Weighing Systems, Inc. |
| | Jon Heinlein | Transcell Technology, Inc. |
| | Scott Henry | Zebra Technologies |
| | Sam Jalahej | Totalcomp, Inc. |
| | Edward Luthy | Retired |
| | Ben Raham | OCS Checkweighers, Inc. |
| | Thomas Rice | Mettler-Toledo, LLC |
| | Thomas Schuller | Cardinal Scale Mfg. Co. |
| | Jerry Wang | A&D Engineering, Inc. |
| | Eric Wechselberger | Mettler-Toledo, LLC |
| | John Wind | Ossid LLC |

Northeastern Weights and Measures Association (NEWMA)www.newma.us

| | | | | |
|------------------------|--|---|--|---------|
| States | Connecticut Maine Massachusetts | New Hampshire New Jersey New York | Pennsylvania Puerto Rico Rhode Island | Vermont |
| Contact | James Cassidy Commonwealth of Massachusetts | | 617-727-3480 james.cassidy@mass.gov | |
| Annual Meeting | May 8-11, 2023 | | Saratoga Springs, New York | |
| Interim Meeting | October 16-19, 2023 | | TBD | |

Central Weights and Measures Association (CWMA)www.cwma.net

| | | | | |
|------------------------|---|---------------------------------|--|-----------------------------------|
| States | Illinois Indiana Iowa | Kansas Michigan Minnesota | Missouri Nebraska North Dakota | Ohio South Dakota Wisconsin |
| Contact | Sherry Turvey Kansas Department of Agriculture | | 785-564-6682 sherry.turvey@ks.gov | |
| Annual Meeting | May 15-18, 2023 | | Grand Rapid, Michigan | |
| Interim Meeting | TBD | | TBD | |

Western Weights and Measures Association (WWMA)www.westernwma.org

| | | | | | |
|-----------------------|---|-----------------------------|--|------------------------------|---------|
| States | Alaska Arizona California | Colorado Hawaii Idaho | Montana Nevada New Mexico | Oregon Utah Washington | Wyoming |
| Contact | David Aguayo County of San Luis Obispo | | 805-781-5922 daguayo@co.slo.ca.us | | |
| Annual Meeting | September 17-21, 2023 | | Sparks, Nevada | | |

Southern Weights and Measures Association (SWMA)www.swma.org

| | | | | | | |
|-----------------------|--|--|---|---|--------------------------------------|--|
| States | Alabama Arkansas Delaware | District of Columbia Florida Georgia | Kentucky Louisiana Maryland | Mississippi North Carolina Oklahoma | South Carolina Tennessee Texas | US Virgin Islands Virginia West Virginia |
| Contact | Stephen Benjamin North Carolina Department of Agriculture | | 984-2326-4755 steve.benjamin@ncagr.gov | | | |
| Annual Meeting | TBD | | TBD | | | |

| Past Chairmen | | | | |
|------------------|------|-------------------------|--------------------|------------------------------|
| Conference | Year | Location | Chairman | Affiliation |
| 1 st | 1905 | Washington, D.C. | Dr. S.W. Stratton | National Bureau of Standards |
| 2 nd | 1906 | Washington, D.C. | Dr. S.W. Stratton | National Bureau of Standards |
| 3 rd | 1907 | Washington, D.C. | Dr. S.W. Stratton | National Bureau of Standards |
| 4 th | 1908 | Washington, D.C. | Dr. S.W. Stratton | National Bureau of Standards |
| | 1909 | Conference Was Not Held | | |
| 5 th | 1910 | Washington, D.C. | Dr. S.W. Stratton | National Bureau of Standards |
| 6 th | 1911 | Washington, D.C. | Dr. S.W. Stratton | National Bureau of Standards |
| 7 th | 1912 | Washington, D.C. | Dr. S.W. Stratton | National Bureau of Standards |
| 8 th | 1913 | Washington, D.C. | Dr. S.W. Stratton | National Bureau of Standards |
| 9 th | 1914 | Washington, D.C. | Dr. S.W. Stratton | National Bureau of Standards |
| 10 th | 1915 | Washington, D.C. | Dr. S.W. Stratton | National Bureau of Standards |
| 11 th | 1916 | Washington, D.C. | Dr. S.W. Stratton | National Bureau of Standards |
| | 1917 | Conference Was Not Held | | |
| | 1918 | Conference Was Not Held | | |
| 12 th | 1919 | Washington, D.C. | Dr. S.W. Stratton | National Bureau of Standards |
| 13 th | 1920 | Washington, D.C. | Dr. S.W. Stratton | National Bureau of Standards |
| 14 th | 1921 | Washington, D.C. | Dr. S.W. Stratton | National Bureau of Standards |
| 15 th | 1922 | Washington, D.C. | Dr. S.W. Stratton | National Bureau of Standards |
| 16 th | 1923 | Washington, D.C. | Dr. George Burgess | National Bureau of Standards |
| 17 th | 1924 | Washington, D.C. | Dr. George Burgess | National Bureau of Standards |
| 18 th | 1925 | Washington, D.C. | Dr. George Burgess | National Bureau of Standards |
| 19 th | 1926 | Washington, D.C. | Dr. George Burgess | National Bureau of Standards |
| 20 th | 1927 | Washington, D.C. | Dr. George Burgess | National Bureau of Standards |
| 21 st | 1928 | Washington, D.C. | Dr. George Burgess | National Bureau of Standards |
| 22 nd | 1929 | Washington, D.C. | Dr. George Burgess | National Bureau of Standards |
| 23 rd | 1930 | Washington, D.C. | Dr. George Burgess | National Bureau of Standards |
| 24 th | 1931 | Washington, D.C. | Dr. George Burgess | National Bureau of Standards |
| | 1932 | Conference Was Not Held | | |
| | 1933 | Conference Was Not Held | | |
| | 1934 | Conference Was Not Held | | |
| 25 th | 1935 | Washington, D.C. | Dr. Lyman Briggs | National Bureau of Standards |
| 26 th | 1936 | Washington, D.C. | Dr. Lyman Briggs | National Bureau of Standards |
| 27 th | 1937 | Washington, D.C. | Dr. Lyman Briggs | National Bureau of Standards |
| 28 th | 1938 | Washington, D.C. | Dr. Lyman Briggs | National Bureau of Standards |
| 29 th | 1939 | Washington, D.C. | Dr. Lyman Briggs | National Bureau of Standards |
| 30 th | 1940 | Washington, D.C. | Dr. Lyman Briggs | National Bureau of Standards |
| 31 st | 1941 | Washington, D.C. | Dr. Lyman Briggs | National Bureau of Standards |
| | 1942 | Conference Was Not Held | | |
| | 1943 | Conference Was Not Held | | |
| | 1944 | Conference Was Not Held | | |
| | 1945 | Conference Was Not Held | | |
| 32 nd | 1946 | Washington, D.C. | Dr. E.U. Condon | National Bureau of Standards |
| 33 rd | 1947 | Washington, D.C. | Dr. E.U. Condon | National Bureau of Standards |
| | 1948 | Conference Was Not Held | | |
| 34 th | 1949 | Washington, D.C. | Dr. E.U. Condon | National Bureau of Standards |
| 35 th | 1950 | Washington, D.C. | Dr. E.U. Condon | National Bureau of Standards |
| 36 th | 1951 | Washington, D.C. | Dr. E.U. Condon | National Bureau of Standards |
| 37 th | 1952 | Washington, D.C. | Dr. A.V. Astin | National Bureau of Standards |
| 38 th | 1953 | Washington, D.C. | Dr. A.V. Astin | National Bureau of Standards |
| 39 th | 1954 | Washington, D.C. | Dr. A.V. Astin | National Bureau of Standards |
| 40 th | 1955 | Washington, D.C. | Dr. A.V. Astin | National Bureau of Standards |

Past Chairmen

| Conference | Year | Location | Chairman | Affiliation |
|-------------------|-------------|--------------------|------------------|------------------------------|
| 41 st | 1956 | Washington, D.C. | Dr. A.V. Astin | National Bureau of Standards |
| 42 nd | 1957 | Washington, D.C. | Dr. A.V. Astin | National Bureau of Standards |
| 43 rd | 1958 | Washington, D.C. | J.P. McBride | Massachusetts |
| 44 th | 1959 | Washington, D.C. | C.M. Fuller | California |
| 45 th | 1960 | Washington, D.C. | H.E. Crawford | Florida |
| 46 th | 1961 | Washington, D.C. | R.E. Meek | Indiana |
| 47 th | 1962 | Washington, D.C. | Robert Williams | New York |
| 48 th | 1963 | Washington, D.C. | C.H. Stender | South Carolina |
| 49 th | 1964 | Washington, D.C. | D.M. Turnbull | Washington |
| 50 th | 1965 | Washington, D.C. | V.D. Campbell | Ohio |
| 51 st | 1966 | Denver, CO | J.F. True | Kansas |
| 52 nd | 1967 | Washington, D.C. | J.E. Bowen | Massachusetts |
| 53 rd | 1968 | Washington, D.C. | C.C. Morgan | Indiana |
| 54 th | 1969 | Washington, D.C. | S.H. Christie | New Jersey |
| 55 th | 1970 | Salt Lake City, UT | R.W. Searles | Ohio |
| 56 th | 1971 | Washington, D.C. | M. Jennings | Tennessee |
| 57 th | 1972 | Washington, D.C. | E.H. Black | California |
| 58 th | 1973 | Minneapolis, MN | George Johnson | Kentucky |
| 59 th | 1974 | Washington, D.C. | John Lewis | Washington |
| 60 th | 1975 | San Diego, CA | Sydney Andrews | Florida |
| 61 st | 1976 | Washington, D.C. | Richard Thompson | Maryland |
| 62 nd | 1977 | Dallas, TX | Earl Prideaux | Colorado |
| 63 rd | 1978 | Washington, D.C. | James Lyles | Virginia |
| 64 th | 1979 | Portland, OR | Kendrick Simila | Oregon |
| 65 th | 1980 | Washington, D.C. | Charles Vincent | Texas |
| 66 th | 1981 | St. Louis, MO | Edward Stadolnik | Massachusetts |
| 67 th | 1982 | Atlanta, GA | Edward Heffron | Michigan |
| 68 th | 1983 | Sacramento, CA | Charles Greene | New Mexico |
| 69 th | 1984 | Boston, MA | Sam Hindsman | Arkansas |
| 70 th | 1985 | Washington, D.C. | Ezio Delfino | California |
| 71 st | 1986 | Albuquerque, NM | George Mattimoe | Hawaii |
| 72 nd | 1987 | Little Rock, AR | Frank Nagele | Michigan |
| 73 rd | 1988 | Grand Rapids, MI | Darrell Guensler | California |
| 74 th | 1989 | Seattle, WA | John Bartfai | New York |
| 75 th | 1990 | Washington, D.C. | Fred Gerk | New Mexico |
| 76 th | 1991 | Philadelphia, PA | N. David Smith | North Carolina |
| 77 th | 1992 | Nashville, TN | Sidney Colbrook | Illinois |
| 78 th | 1993 | Kansas City, MO | Allan Nelson | Connecticut |
| 79 th | 1994 | San Diego, CA | Thomas Geiler | Massachusetts |
| 80 th | 1995 | Portland, ME | James Truex | Ohio |
| 81 st | 1996 | New Orleans, LA | Charles Gardner | New York |
| 82 nd | 1997 | Chicago, IL | Barbara Bloch | California |
| 83 rd | 1998 | Portland, OR | Steven Malone | Nebraska |
| 84 th | 1999 | Burlington, VT | Aves Thompson | Alaska |
| 85 th | 2000 | Richmond, VA | Wes Diggs | Virginia |
| 86 th | 2001 | Washington, DC | Louis Straub | Maryland |
| 87 th | 2002 | Cincinnati, OH | Ronald Murdock | North Carolina |
| 88 th | 2003 | Sparks, NV | Ross Andersen | New York |
| 89 th | 2004 | Pittsburgh, PA | Dennis Ehrhart | Arizona |
| 90 th | 2005 | Orlando, FL | Wes Diggs | Virginia |
| 91 st | 2006 | Chicago, IL | Don Onwiler | Nebraska |

Past Chairmen

| Past Chairmen | | | | |
|-------------------|------|--------------------|------------------|----------------|
| Conference | Year | Location | Chairman | Affiliation |
| 92 nd | 2007 | Salt Lake City, UT | Michael Cleary | California |
| 93 rd | 2008 | Burlington, VT | Judy Cardin | Wisconsin |
| 94 th | 2009 | San Antonio, TX | Jack Kane | Montana |
| 95 th | 2010 | St. Paul, MN | Randy Jennings | Tennessee |
| 96 th | 2011 | Missoula, MT | Tim Tyson | Kansas |
| 97 th | 2012 | Portland, ME | Kurt Floren | California |
| 98 th | 2013 | Louisville, KY | Stephen Benjamin | North Carolina |
| 99 th | 2014 | Detroit, MI | John Gaccione | New York |
| 100 th | 2015 | Philadelphia, PA | Ronald Hayes | Missouri |
| 101 st | 2016 | Denver, CO | Jerry Buendel | Washington |
| 102 nd | 2017 | Pittsburgh, PA | Kristin Macey | California |
| 103 rd | 2018 | Tulsa, OK | James Cassidy | Massachusetts |
| 104 th | 2019 | Milwaukee, WI | Brett Gurney | Utah |
| 105 th | 2020 | Lansing, MI | Craig VanBuren | Michigan |
| 106 th | 2021 | Rochester, NY | Hal Prince | Florida |
| 107 th | 2022 | Tacoma, WA | Ivan Hankins | Iowa |

General Information

PURPOSE

NCWM meetings are held throughout the year to develop the national standards that are adopted by NCWM and published in *Handbooks 44, 130, and 133*. At the Annual Meeting, Committees will conduct Open Hearings where all attendees can offer comments to the committees on items printed in the Committee Interim Reports. Following Open Hearings, the Committees will convene in work sessions to prepare addendum sheets that modify their reports. Items given voting status by the Committees will be presented during the Voting Sessions on Wednesday and Thursday. Active members in attendance may vote on Committee recommendations to amend the national standards.

SUPPORTING DOCUMENTS

Additional letters, presentations and data may have been part of the committee's consideration. Please refer to www.ncwm.com/publication-16 to review these documents.

ITEMS GROUPED INTO BLOCKS

The Committee may group related items into blocks to be considered as a group. This provides for more efficient open hearings and voting sessions since each item within a block is not presented individually.

DESIGNATION OF ITEM STATUS

The Committee Interim Reports contain recommendations and information on items discussed during the 2023 NCWM Interim Meeting held January 8-11, 2023 at Savannah, Georgia. These reports form the basis for conduct of the committee meetings. Each Committee will address items in its report during Open Hearings.

The status of each item contained in the Committee Interim Reports is designated as one of the following:

Voting Item: The item is designated with a "V" to indicate the Committee is making recommendations requiring a vote by the active members of NCWM. The recommended language to be voted on is in **bold face type**.

Informational Item: The item is designated with an "I" to indicate the item is under consideration by the Committee but not proposed for Voting.

Assigned Item: The item is designated with an "A" to indicate the item has merit; however, the item was assigned to a task group or subcommittee of for further development and the Committee will wait for a recommendation from that group before taking any further action on the item.

Developing Item: The item is designated with a "D" to indicate an item has merit; however, the item was returned to the submitter or other designated party for further development before any action can be taken at the national level.

Withdrawn Item: The item is designated with a "W" to indicate the item has been removed from consideration by the Committee.

General Information

Some Voting Items are considered individually; others may be grouped in a consent calendar. Consent calendar items are Voting Items that the committee has assembled as a single Voting Item during their deliberation after the Open Hearings on the assumption that the items are without opposition and will not require discussion. The Voting Items that have been grouped into consent calendar items will be listed on the addendum sheets which are published during the week. Prior to adoption of the consent calendar, the committee will entertain any requests from the floor to remove specific items from the consent calendar to be discussed and voted upon individually.

Committees may change the status designation of agenda items (Developing, Informational, Voting, and Withdrawn) up until the report is adopted, except that items which are marked Developing, Informational or Withdrawn cannot be changed to Voting Status. Any change from the Committee Interim Report (as contained in this publication) or from what appears on the addendum sheets will be explained to the attendees prior to a motion and will be acted upon by the active members of NCWM prior to calling for the vote.

ADDENDUM SHEETS

Modifications to the Committee Interim Reports will be documented in the form of addendum sheets prepared by the committees following the Open Hearings. The addendum sheets will be made available to attendees no later than 8:00 p.m. on Wednesday, August 2, 2023 in the registration area. Committee Interim Reports may be further modified as a result of actions taken by the Committee or membership during the Voting Session on Thursday, August 3, 2023.

VOTING SYSTEM

All registered attendees may speak to the issues on the "floor", both business and technical items. However, the adoption of final reports of Committees on technical issues, as well as other technical issues, is to be decided by a formal vote of the active members in accordance with the following voting structures and procedures. Please see NCWM Bylaws at www.ncwm.com/policy-bylaws for a complete description of the voting system.

House of State Representatives:

This body is comprised of one active member from each state who is officially designated as its representative and is registered for the Annual Meeting. They will vote on:

- all business items relating to NCWM, Inc.
- technical questions before the Corporation, including reports and recommendations of all Standing Committees.
- technical items relating to weights and measures; technical handbooks; and legal metrology.

Members of this house are identified by a maroon name tag ribbon with the word "Representative."

House of Delegates:

This body is comprised of all other active members who are registered for the Annual Meeting and those not "seated" in the House of State Representatives. They will vote on:

- all business items relating to NCWM, Inc.
- technical questions before the Corporation, including reports and recommendations of all Standing Committees.
- technical items relating to weights and measures; technical handbooks; and legal metrology.

Members of this house are identified by a blue name tag ribbon with the word "Delegate."

House of General Membership:

This body is comprised of associate and advisory members registered for the Annual Meeting. They shall vote on all business items relating to NCWM, Inc.

WRITTEN COMMENTS OR ORAL STATEMENTS

Any person or organization wanting to provide a formal presentation during a committee session should make the request in writing to the Executive Director. Reasonable limitations on time allotted for presentations will be imposed.

Note: Only registered attendees may make presentations.

National Conference on Weights and Measures
Attn: Don Onwiler, Executive Director
1135 M Street, Suite 110 / Lincoln, Nebraska 68508
402-434-4880, don.onwiler@ncwm.com

PARTICIPATION

All sessions are open to registered attendees of the conference. If a committee must discuss any issue that involves proprietary information or other confidential material; that portion of the session dealing with the special issue may be closed if:

1. the NCWM Chairman or, in his absence, the Chairman-Elect approves,
2. the Executive Director is notified, and
3. an announcement of the closed meeting is posted on or near the door to the meeting session and at the registration desk.

If possible, the posting will be done at least a day prior to the planned closed session. Please note that a one-day notice will not be possible if a closed meeting is called on Sunday. Since participants may make their travel reservations to attend technical meetings scheduled for Sunday, every effort will be made to limit any required closed meetings to only part of Sunday.

REPORTS

There will not be a transcript made of the proceedings of the Annual Meeting. Each committee will prepare its annual report containing its recommendations based upon the presentations, discussions, and deliberations on all matters in its interim report that were addressed during the Annual Meeting. These reports will be published in the *Report of the 108th Annual Meeting of the National Conference on Weights and Measures*, to be posted online at www.ncwm.com. Electronic copies of the *Report of the 108th Annual Meeting of the National Conference on Weights and Measures* will be distributed to all members of NCWM. Other interested parties may request a copy of the publication from the Executive Director.

National Conference on Weights and Measures
Attn: Don Onwiler, Executive Director
402-434-4880
don.onwiler@ncwm.com

INTERIM MEETING

The 2024 NCWM Interim Meeting will be held:

New Orleans, Louisiana / January 7-10, 2024

UNITS OF MEASUREMENT

In keeping with the provisions of the Omnibus Trade and Competitiveness Act of 1988, which establishes the metric system as the preferred system of measurement for commerce and trade, units of the metric system have been used in this document, except where industry has not yet converted from the inch-pound system. In some instances, submitted proposals quoted in the Committee agendas may appear in inch-pound units only.