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Chairman's Column

Brett Gurney, NCWM Chairman — State of Utah



Dear NCWM Members,

Today, every citizen and business continues to depend on Weights and Measures. Every day weights and measurements are taken during business transactions. Many people don't think about the accuracy of the measurement which is taken during the transaction. For centuries, weights and measurements have been an integral part of society.

Those of us who work in the Weights and Measures field know that small weighing and measuring errors can accumulate to millions of dollars. Others may not realize the importance of the measurement itself.

The theme I selected for this year is "Valued Traditions & New Innovations - Confidence in Every Transaction". The focus of Weights and Measures is to assure consumers get what they paid for and that businesses get paid for goods and services they sell. Weights and measures will need to continue to develop and improve standards to foster fair competition and assure that a fair marketplace is in place for all parties.

New technology is becoming available to us on a more frequent basis. As new

measurement processes, equipment, products and services are developed, a fair and equitable marketplace continues to be an important system between buyers and sellers. Just as in times of old, standards in weighing and measurement are needed. Weights and Measures must be considered as new technology is developed.

Stakeholders from all parties must be proactive and are needed during the standards development process.

Weights and Measures agencies need the support from those who make important decisions about the jurisdictions to be successful. Resources are needed to ensure Weights and Measures are fair and equitable in the marketplace. Inspectors, equipment, administrative staff, experience and knowledge are but a few of the elements needed for a successful jurisdiction.

There are many rewarding and beneficial reasons for participating in the NCWM, including:

- Assisting with the development of national standards
- Networking with peers and business associates
- Staying current on important related issues and trends
- Meeting and communicating with stakeholders to obtain and maintain stakeholder relationships
- Professional growth

Continued on page 2

- Attending training and seminars
- Attending Open Hearings
- Attending Technical Sessions
- Give and listen to testimony on important issues
- Listen to ideas and find solutions for improvement
- Share knowledge and experience
- Expand your knowledge by taking advantage of the viewpoints and prior experience of others
- Take advantage of the experiences of others before you invest time and money can be invaluable
- Improve morale and gain confidence
- Associate with people who can be a great resource for future issues
- Taking what you learn back to your own jurisdiction

The NCWM Interim Meeting was recently held January 13 - 16, 2019 in Charleston, South Carolina and was a success. Once again, important topics were discussed and the process of developing national standards continued.

We also had a great technical session from our Cannabis

Task Group. We heard reports from each of the focus groups on scale suitability, method of sale, packaging and labeling, inspector safety, and moisture loss of pre-packaged products.

I want to take this opportunity to thank all the volunteers who make NCWM a success. I appreciate all the hard work of our committees, subcommittees, task groups, focus groups, sectors, and Board of Directors!

We have a diverse membership. Representation includes individuals from business and government organizations who have a vested interest in creating the best measurement standards that will allow for the need of valued traditions and new innovations that will allow confidence in every transaction.

Let's continue to work together in developing national standards and making our process better.

I hope to see you all at an upcoming meeting at CWMA and NEWMA or at the NCWM Annual Meeting in Milwaukee, Wisconsin this July.

Brett Gurney

Weights and Measures Week, March 1 - 7!

Each year, the first 7 days of March are dedicated to celebrating the world of weights and measures. These dates are designated to commemorate President John Adam's signing of the first United States weights and measures law on March 2nd, 1799.

NCWM Chairman Brett Gurney declared the theme, "Valued Traditions and New Innovations – Confidence in Every Transaction". He explained that weights and measures officials are constantly challenged to maintain their traditional activities while also addressing fast-changing innovations in the marketplace. They are to be congratulated for meeting this challenge of instilling confidence in every transaction.

NCWM will be posting daily on social media during Weights and Measures Week. You are encouraged to share with NCWM, and others, what you are doing to celebrate. **Be sure to mark your calendars!**



That Equity May Prevail!

Professional Development Committee Interim Summary

By Gene Robertson, PD Committee Chair, Mississippi

The 2019 Professional Development Committee Interim Agenda consisted of 5 informational Items. Here is a summary of comments received by the PDC during open hearings and committee direction:

EDU-1 Professional Certification Program

The PDC has taken the feedback from the NCWM Board of Directors (BOD) regarding the post-exam survey into account and updated the survey accordingly. In January, the BOD provided a few additional comments. The committee integrated the requested changes and has submitted a final version to NCWM.

Hard copies of valid reference materials can be used and NCWM has authorized digital versions to become available. The digital version of *NIST Handbook 44* used for examination supporting documents will be searchable. Hardcopies of the reference tables will continue to be provided to those sitting for the LPG exam.

Brett Gurney thanked Ross Andersen for his hard work as Certification Coordinator. Gurney welcomed and thanked Jerry Buendel for taking on the role moving forward.

EDU-2 Training

The committee was requested to review and potentially update/reintroduce the old NIST OWM training modules. The committee is unsure whether these modules are still available in digital format, but will investigate.

Ross Andersen (NY, retired) noted that NIST has extensive training materials we could leverage; requesting these materials from NIST may be beneficial.

The state of Kansas mentioned their upcoming training plans which will cover both VTM and load rack training and will be held for 5 days starting June 10.

NIST metrology training in Florida:

Combined Regional Measurement Assurance Program (C-RMAP) Tutorial 1-4 | May 31 - June 2, 2019

Combined Regional Measurement Assurance Program (C-RMAP) | June 2 - 6, 2019

Three states recommended NCWM and NIST OWM consider joint development of training videos and investigate funding from additional sources such as grants.

EDU-3 Instructor Improvement

Since NIST was absent, no update was available and no comments were heard.

EDU-4 Topics for Conference Training

Suggestions from the floor:

- Investigative reporting
- D.E.F. Testing requirements, special considerations (handling, safety, equipment)
- Differentiation between weight classifier and normal rounding scales
- Organizing/publishing existing training materials

PMT-1 Safety Awareness

Julie Quinn (Safety Liaison) stated the Safety Awareness Subcommittee has completed their initial task of developing the Safety Toolkit on the NCWM web site and are looking for suggestions on future projects.

There are OSHA grants available for non-profits to assist in building safety programs.

A suggestion was made to create a template to assist jurisdictions in documenting the essential elements of their safety programs. This could include requirements for specific test procedures, etc. and when completed by the jurisdiction provide documentation for OSHA, etc. as evidence of a functional program.

Employment Opportunities

NCWM is proud to serve the weights and measures community, both private and public sectors, by listing employment opportunities. Any organization that maintains memberships with NCWM may request positions be posted online for public viewing at www.ncwm.net/resource/employment-opportunities.

If you wish to post employment opportunity information, please send inquiries to don.onwiler@ncwm.net.

NTEP Column

Verified Conformity Assessment Program (VCAP) Update

Darrell Flocken, NTEP Specialist



It has been over a year since our last update of the Verified Conformity Assessment Program (VCAP). I am happy to report the program, now in its 10th year, has made significant progress towards its goal of ensuring weighing device and component performance conforms to the required specifications and tolerances when subjected to external influence factors. I use the word “significant” as there are still categories of weighing instruments that are just now, or will soon be, reaching their introduction date into the program. To learn more about the introduction and compliance dates for the remaining instruments, please visit www.ncwm.net/ntep/conformity/vcap.

Below are statistics related to weighing devices or elements since the last update:

Load Cells:

- 29 new or amended CC's were issued since July 1, 2017. Of these 29, 3 CC's were issued to 2 new manufacturers. Manufacturers had until November 2018 to become VCAP compliant
- Since July 2017, no CC's were made inactive due to VCAP non-compliance

Weighing/Load Receiving Elements ≤ 2000 lb capacity with non-NTEP certified load cells:

- 13 new or amended CC's, within this VCAP device category, were issued since July 1, 2017. Of these 13, one CC was issued to a new manufacturer. The manufacturer has until February 2019 to become VCAP compliant
- Since July 2017, no CC's were made inactive due to VCAP non-compliance

Indicating Elements:

- 18 new or amended CC's were issued since July 1, 2017. Of these 18, 2 CC's were issued to 2 new manufacturers. The manufacturers have until March and August 2019, respectively, to become VCAP compliant
- Since July 2017, no CC's were made inactive due to VCAP non-compliance

Complete Scales: This device category had a compliance deadline of June 30, 2018 for manufacturers and December 31, 2018 for private label CC holders

- 5 new CC holding companies were added to VCAP for this category of device types since the original 56 companies reported on last year; bringing the total number of manufacturers requiring VCAP audits to 61
 - 57 are manufacturers
 - 4 are private labelers
- As of July 2017, 63 new or amended CC's were issued
- As of January 2019, no CC's were made inactive

The remaining device types and their introduction dates into the program are:

Automatic Weighing Instruments

- December 31, 2018 for manufacturers
- June 30, 2019 for private labelers

Automatic Bulk Weighing Systems

- June 30, 2019 for manufacturers
- December 31, 2019 for private labelers

Belt-Conveyor Scale Systems

- December 31, 2019 for manufacturers
- June 30, 2020 for private labelers

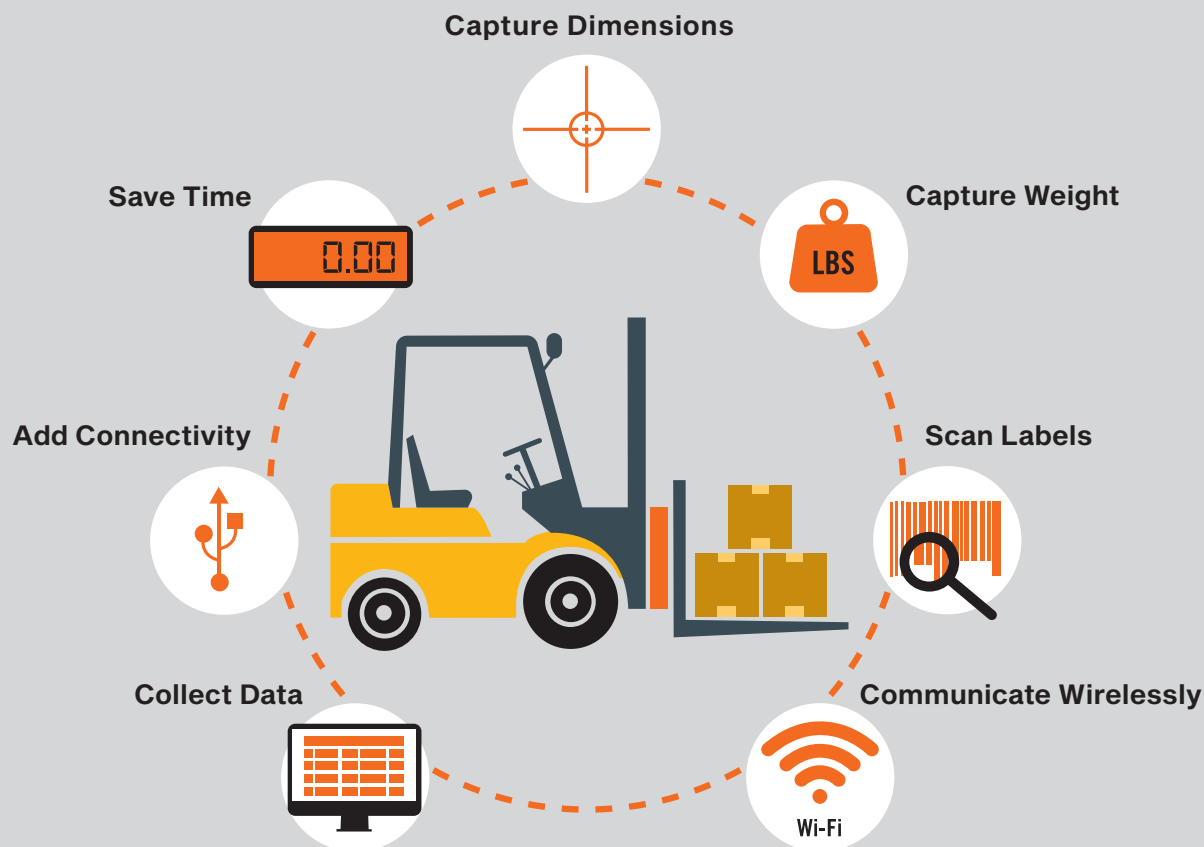
Per the *NCWM Publication 14: Administrative Policy*, if a company holds an NTEP Certificate of Conformance for one or more of these latest instrument types, a VCAP program must be implemented at that company's facility.

The VCAP program has seen improvements since its introduction. One of these improvements was the expansion of the availability of VCAP auditors. The VCAP Policy was expanded to include Certification Bodies that are organizations listed as signatories of the ANAB and ILAC Mutual Recognition agreement, and NCWM technical employees. This change expands the number of VCAP auditors on both the national and international level. Another important change was the exemption of all device types with a weighing capacity of greater than 2000 lb (1000 kg). This capacity was selected per the NTEP Technical Policy stating that devices with capacities of up to and including 2000 lb (1000 kg) must be evaluated to the influence factors defined in *NIST Handbook 44*.

As always, improvement is a continuous process and your thoughts, ideas, and suggestions are welcomed by NCWM and NTEP for improving the Verified Conformity Assessment Program.

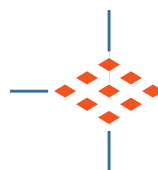
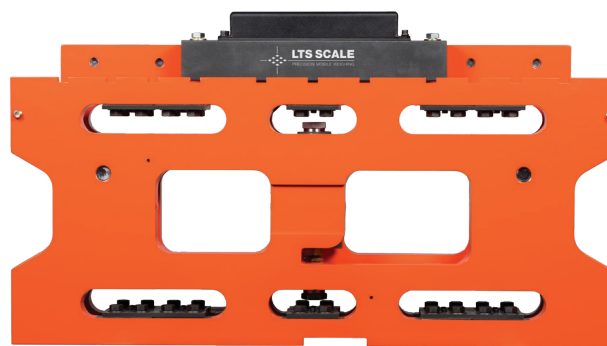
If you have any questions regarding this program or would like to discuss the information presented in this article, in more detail, contact the NTEP Specialist, Darrell Flocken at darrell.flocken@ncwm.net.

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2019 NCWM Interim Meeting Highlights!

January 13 - 16 | Charleston, SC



One of the many great dishes we had at the Chairman's Reception honoring Brett Gurney (UT)



First up were the fresh-cooked crab cakes.



Measurment Canada folks (from left): Carl Cotton, Lance Robertson, and Luciano Burtini



Chicken and Waffles, a local favorite!



Paul Lewis and his wife Mary are retired from Rice Lake Weighing Systems and now reside in South Carolina



The beef tenderloin station was a major hit!



Laws and Regulations
Committee Chair
Michelle Wilson (AZ)



Specifications and Tolerances
Committee Chair
Shelly Miller (WI)



Professional Development
Committee Chair
Gene Robertson (MS)



Above: Hal Prince (FL) was
nominated to be the NCWM Chair-
Elect and Left: NCWM Chairman
Brett Gurney (UT) led the Board of
Directors Open Hearings.



We had great attendance in Charleston.
Thank you to all our attendees.



The Technical Session on the Cannabis Task
Group approached industry topics such as
scale suitability, method of sale, and inspector
safety. From left: Charlie Rutherford, Mauricio
Mejia, Josh Nelson and Julie Quinn.

EVENT CALENDAR 2019

March

NTEP Lab Meeting
Tulsa, Oklahoma
March 26 - 28

May

CWMA Annual Meeting
Canton, Ohio
May 6 - 9

NEWMA Annual Meeting
Portland, Maine
May 12 - 16

July

104th NCWM Annual Meeting
Milwaukee, Wisconsin
July 14 - 18

August

NTEP Grain Analyzer Meeting
Kansas City, Missouri
August 13

NTEP Weighing Meeting
Denver, Colorado
August 20 - 21

September

WWMA Annual Meeting
Park City, Utah
September 8 - 12

NTEP Measuring/Software Meeting
Denver, Colorado
September 24 - 26

October

SWMA Annual Meeting
Knoxville, Tennessee
October 6 - 9

Looking Forward...

104th NCWM Annual Meeting

July 14 - 18 | Milwaukee, Wisconsin

The Annual Meeting is the high point of our year where all the hard work pays off. At this meeting, stakeholders will debate important proposals to amend the United States standards for weights and measures. When the debating is done, the votes will be cast.

Our committees have their work cut out for them with some very full and diverse agendas. Committee agendas are available at www.ncwm.net/meetings/annual/publication-16.

MEETING LOCATION

Hyatt Regency Milwaukee
333 W Kilbourn Avenue
Milwaukee, WI 53203
P. (888) 421-1442

Group Rate: \$119.00*

*Mention code "**G-NCWM**" to secure group rate.

Reservation Discount Deadline: June 21, 2019

Click [here](#) to make your online reservation!

EVENTS

The **Chairman's Reception** will honor Brett Gurney from the State of Utah. The reception will be Sunday, July 14th at 5:30 p.m. Dress is business casual.

The **Special Event** will be held Wednesday, July 17th at the Wisconsin Public Museum! Attendees will be picked up at 5:50 p.m. in front of the hotel. We will have access to a number of exhibits from 6:00 p.m. until 9:30 p.m. Busses will begin return trips to the hotel at 8:00 p.m. At the museum, you can explore the Dome Theater and Planetarium, a two-story rainforest, and the historical Streets of Milwaukee and much more! We will have non-traditional dining stations available so you can enjoy dinner and explore the exhibits at your leisure. *Attire is casual.*

**Be sure to submit your registration form by
June 21 to secure discounted rates!**

NCWM Welcomes New Members (8/15/18 - 1/23/2019)

Abel Manufacturing

Gary Theabo

American Food & Vending

Jamie Condon

American Herbal Products Association

Jane Wilson

American Weigh Scales, Inc.

Jon Putman

Americas for Safe Access

Heather Despres

Arizona Dept. of Agriculture

Shannon Bell
Cory Gandara
Ray Garcia
Adrian Lopez
Karla Moreno
Herman Peralta
Chad Pilie
Evan Pope
Luis Romero
Vince Wolpert

Arkansas Bureau of Standards

Christian Olson

Badger Meter Inc.

Dennis Schwartz

Boveda

Brian Rice

Brechbuhler Scales, Inc.

Steve Trueman

Brockton Weights and Measures (MA)

Corey Quinlan

Burlington Country Weights and Measures

Kaitlyn Schatz
Kyle Siemietkoski

Cambridge Scale Works, Inc.

Larry Buckwalter

CAS Corporation

Eun-Kyoung Eo
Tom McNally

City of Milwaukee, WI

Robert Kieser

Cleveland Weights and Measures

Alexander Jovanovic
Rginald McKay

Commodity Vend Corp, LLC

Terrence Smith

Cubiscan

Robert Iverson

Deleware Dept. of Agriculture

Robert Brennan
Daniel Huffman

ECRS

Brian Duncan

Epos Now

Julian Buck

Eric County Weights and Measures

Paula Trimper

Erie Technical Systems, Inc.

Scott Kennemuth

Genesee County

David Diegelman

Gerhart Systems & Controls

Peter Fienemann

GSI Group / Intersystems

Clint Richter

Hoffer Flow

Vito Kepka

Idaho Weights and Measures

Terry Sheets

Junge Control, Inc.

Mark Stauffer

Kansas Dept. of Agriculture

Daniel White

Louisiana Dept. of Agriculture and Forestry

Brannon Andrus
Steven Coco
Sarah Dark
Laura Oliver

Maryland Dept. of Agriculture

Wayne Early
Jeannette George

Material Handling Systems

Amy Woolums

Merced County Weights and Measures

Gabriel Radich

Mettler-Toledo LLC

Robert Riddle

Mississippi Dept. of Agriculture and Commerce

Henri Fuselier

Missouri Dept. of Agriculture

Gabriel Putz
Tanner Reid
Steven Underwood

Monroe County Weights and Measures

Frederick Armes
Theodore Dymont
Peter Monsees

Multivac

Ryan Spencer

Murphy Oil USA, Inc.

Roland Bradfute

Murray Equipment, Inc./ Total Control Systems

John Hathaway
Dan Murray

Napa County Ag. Commisioner's Office

Tracy Cleveland

NIST, Office of Weights and Measures

Val Miller

Ohio Dept. of Agriculture

J. Tucker Farthing

Orange County Weights and Measures

Randy Brock
John O'Reilly
Yanta Shervington
Gerald Zazzero

P.D. McLaren Limited

Carol Okabe

Petco Animal Supplies Stores Inc.

Greg Hartnett

Piper Systems Ltd.

Archie Hamilton

PopScrap.com Inc.

Stacy Duty

Precision Digital Corp.

Debbie Frechette

Robertsons

Todd Dragna

San Bernardino County Ag./ Weights and Measures

Paul Sharpe

San Diego County Dept. of Agriculture

Ian Hudson

Scale Systems, Inc.

Donna O'Tyson

Scalemart Div. of Carstan AccuData Scale

Martin McDonnell

Siemens AG

Dirk Hoffmeier

Signify

Ernesto Mendoza

Continued on page 10

NCWM Welcomes New Members (cont.)

Somerset County Weights and Measures

Jeremy Eckles

St. Lawrence County

Adam Simmons

Sullivan County Weights and Measures

Robert Hessinger

Tennessee Dept. of Agriculture

Amos Farrell

Charles Hammock

Texas Dept. of Agriculture

Krishnaun Adair

Ray Agan

Kia Alexander

Kamika Allen

Michael Archer

Orlando Arguelles

Jerriel Bazile

Richard Becker

Amanda Blackwell

Richard Bolton

Jeffrey Brixey

Ross Bulls

Daria Burton

Shelby Caballero

Nicholas Cart

Steve Cavitt

Brandi Chandler

Lisa Corn

Juan Cortez

Bryant Dosewell

John Eads

Ann Elliott

Gregory Fryer

Brianna Galvan

Sergio Garza

Jan Hatler

Deltora Hewitt

Paul Hopper

Billy Hord

Brandon Hubbard

Daniel Jackson

Candace Jackson

Colton Jamison

Jesus Lozoya

Julian Lyons

Samuel Marinelarena

Juan Monreal

Dandria Monroe

Timothy Morales

Marcus Murphy

Elizabeth Nguyen

Iyke Nwanji

Kristen Peters

Jessica Pope

Lisa Pruitt

Charles Rigsbee

Jonathan Rogers

Lindsay Sachitano

Paul Staples

Janice Teas

Stephanie Theriot

Scott Thomas

Charles Timmons

John Travis

Kevin Weyland

Matthew Williams

Nathan Wilson

Larry York

Nathaniel Ziegler

Anthony Zimmer

The Scale People

Travis Motz

The Site Controller LLC

Michael Downs

Town of Farmingham

James Meo

TTCI

Carmen Trevizo

Tulare County Dept. of Agriculture

Samuel Conant

Union County Auditor's Office

Kendall Sullivan

USDA AMS Dairy Program

Steven Hoover

Virginia Dept. of Motor Vehicles

Wayne Davis

Wal-Mart

Lee White

Washington State Dept. of Agriculture

Megan Welch

Wisconsin Dept. of Ag. and Consumer Protection

Sean Brown

Benjamin Clark

Ronald DePouw

Terri Garsow

Daniel Lindert

Lance Smithey

Yamato Scale Co., Ltd.

Tetsuya Koyama

Ron Wallace

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Specifications and Tolerances Committee Interim Summary

By Rachelle Miller, S&T Committee Chair, Wisconsin

The 2019 Specifications and Tolerances Committee Interim Agenda consisted of 76 items this year (with some grouped into 5 Block Items). Presentations and written comments provided to the Committee are available www.ncwm.net. Oral comments for these agenda items were heard during the open hearing session at the Interim Meeting and all of the aforementioned were considered by the Committee when assigning the following status for each item as follows:

VOTING ITEMS

Scales Code

- SCL-1 S.1.1.1. Digital Indicating Elements. and UR.2.10 Primary Indicating Elements Provided by the User
- SCL-7 T.N.3.6. Coupled-In-Motion Railroad Weighing Systems., T.N.4.6. Time Dependence (Creep) for Load Cells during Type Evaluation., UR.5. Coupled in-Motion Railroad Weighing Systems. and Appendix D – Definitions: point-based railroad weighing systems

Belt Conveyor Scale Systems Code

- BCS-1 S.1.3. Value of the Scale Division., S.1.9. Zero-Ready Indicator., S.4. Accuracy Class., S.4.5. Marking Requirements., N.1. General., N.2. Conditions of Test., T.1. Tolerance Values., T.2. Tolerance Values. and UR.3. Maintenance Requirements – Scale and Conveyor Maintenance

Automatic Weighing Systems Code

- AWS-3 S.3.2. Load Cell Verification Interval Value

BLOCK 3 Items (B3) – Address Devices and Systems Adjusted Using a Removable Digital Storage Device

- B3: GEN-2 G-S.8.2. Devices and Systems Adjusted Using Removable Digital Device Storage
- B3: SCL-5 S.1.11. Provision for Sealing
- B3: BCS-1 S.5. Provision for Sealing
- B3: ABW-2 S.1.6. Provision for Sealing Adjustable Components on Electronic Devices
- B3: AWS-2 S.1.3. Provision for Sealing
- B3: LMD-1 S.2.2. Provision for Sealing
- B3: VTM-2 S.2.2. Provision for Sealing
- B3: LPG-1 S.2.2. Provision for Sealing
- B3: HGV-1 S.2.2. Provision for Sealing
- B3: CLM-2 S.2.5. Provision for Sealing
- B3: MLK-1 S.2.3. Provision for Sealing
- B3: WTR-1 S.2.1. Provision for Sealing
- B3: MFM-1 S.3.5. Provision for Sealing
- B3: CDL-3 S.2.5. Provision for Sealing
- B3: HGM-3 S.3.3. Provision for Sealing
- B3: EVF-1 S.3.3. Provision for Sealing

- B3: TIM-1 S.4. Provision for Sealing
- B3: GMA-1 S.2.5. Provision for Sealing
- B3: MDM-1 S.1.11. Provision for Sealing

BLOCK 4 Items (B4) – Automatic Timeout Specifications

- B4: MFM-3 S.2.9. Automatic Timeout – Pay-At-Retail Motor-Fuel Devices
- B4: HGM-4 S.2.8. Automatic Timeout – Pay-At-Vehicle Fuel Dispenser
- B4: EVF-2 S.2.8. Automatic Timeout – Pay-At-EVSE

BLOCK 5 Items (B5) – Repeatability Tests and Tolerances

- B5: LMD-2 N.4.1.2. N.4.6. Repeatability Tests. and T.3. Repeatability
- B5: VTM-3 N.4.1.2. N.4.6. Repeatability Tests. and T.3. Repeatability
- B5: LPG-4 N.4.1.2. N.4.6. Repeatability Tests. and T.3. Repeatability
- B5: HGV-2 N.4.1.2. N.4.3. Repeatability Tests. and T.2. Repeatability
- B5: CLM-3 N.5.1.1. N.5.3. Repeatability Tests. and T.4. Repeatability
- B5: MLK-2 N.4.1.1. N.4.4. Repeatability Tests. and T.3. Repeatability
- B5: WTR-2 N.4.1.1. N.4.4. Repeatability Tests
- B5: MFM-6 N.6.1.1. N.6.3. Repeatability Tests. and T.3. Repeatability
- B5: CDL-4 N.4.1.1. N.4.5. Repeatability Tests. and T.2.1. Repeatability
- B5: HGM-5 N.6.1.1. N.6.2. Repeatability Tests. and T.3. Repeatability

Liquid Measuring Devices Code

- LMD-3 A.1. General., S.2.5. Zero-Set-Back Interlock, for Retail Motor Fuel Devices., S.4. Marking Requirements., S.5. Zero-Set-Back Interlock, for Retail Motor Fuel Devices., UR.2.4. Diversion of Liquid Flow. and UR.2.5. Product Storage Identification
- LMD-5 UR.3.4. Printed Ticket

Vehicle Tank Meters Code

- VTM-1 S.3.1.1. Means for Clearing the Discharge Hose and UR.2.6. Clearing the Discharge Hose

LPG/Anhydrous Ammonia Liquid Measuring Devices Code

- LPG-2 S.2.5. Zero-Set-Back Interlock, Stationary and Vehicle Mounted Meters, Electronic

Mass Flow Meters Code

MFM-2 S.1.3.3. Maximum Value of Quantity-Value divisions
MFM-4 S.5.1. Location of Marking Information; Retail Motor Fuel Dispensers

Hydrogen Gas-Measuring Devices - Tentative Code

HGM-6 Tentative Code Status and Preamble., A.2.(c) Exceptions., N.2. Test Medium., N.3. Test Drafts., N.4.1. Master Meter (Transfer) Standard Test., N.4.2. Gravimetric Tests., N.4.3. PVT Pressure Volume Temperature Test., N.6.1.1. repeatability Tests., T.3. Repeatability., T.6. Tolerance – Minimum Measured Quantity (MMQ). and Appendix D. Definitions where applicable

Electronic Vehicle Fueling Systems Tentative Code

EVF-4 Appendix D – Definitions: power factor (PF)

Taximeters Code

TXI-1 N.1.3.2. Taximeters Using Other Measurement Data Sources

Grain Moisture Meters 5.56 (A) Code

GMA-2 Table S.2.5. Categories of Devices and Methods of Sealing

Other Items

OTH-5 Appendix D – Definitions: Batch (Batching)

INFORMATIONAL ITEMS

General Code

GEN-1 G-A.1. Commercial and Law-Enforcement Equipment and G-S.2. Facilitation of Fraud

ASSIGNED ITEMS

General Code

GEN-3 G-T.5. Tolerances on Tests When Transfer Standards are Used., Appendix D – Definitions: standards, field., transfer standard and standard, transfer (Assigned along with Block 1, Block 2, LPG-3, and MFM-5)

Scales Code

SCL-2 S.1.8.5. Recorded Representations, Point of Sale Systems
SCL-3 Sections Throughout the Code to Include Provisions for Commercial Weigh-in-Motion Vehicle Scale Systems

BLOCK 1 Items (B1) – Terminology for Testing Standards (Assigned along with GEN-3, Block 2, LPG-3, and MFM-5)

B1: SCL-4	N.2. Verification (Testing) Standards
B1: ABW-1	N.2. Verification (Testing) Standards
B1: AWS-1	N.1.3. Verification (Testing) Standards, N.3.1. Official Tests, UR.4. Testing Standards
B1: CLM-1	N.3.2. Transfer Standard Test and T.3. On Tests Using Transfer Standards
B1: CDL-1	N.3.2. Transfer Standard Test and T.3. On Tests Using Transfer Standards
B1: HGM-1	N.4.1. Master Meter (Transfer) Standard Test, T.4. Tolerance Application on Test Using transfer Standard Test Method
B1: GMM-1	5.56(a): N.1.1. Air Oven Reference Method Transfer Standards, N.1.3. Meter to Like-Type Meter Method Transfer Standards and 5.56(b): N.1.1. Transfer Standards, T. Tolerances1
B1: LVS-1	N.2. Testing Standards
B1: OTH-1	Appendix A: Fundamental Considerations, 3.2. Tolerances for Standards, 3.3. Accuracy of Standards
B1: OTH-2	Appendix D – Definitions: fifth-wheel, official grain samples, transfer standard and Standard, Field

BLOCK 2 Items (B2) – Define “Field Reference Standard” (Assigned along with GEN-3, Block 1, LPG-3, and MFM-5)

B2: CLM-2	N.3.2. Transfer Standard Test and T.3. On Tests Using Transfer Standards
B2: CDL-2	N.3.2. Transfer Standard Test and T.3. On Tests Using Transfer Standards
B2: HGM-2	N.4.1. Master Meter (Transfer) Standard Test and T.4. Tolerance Application on Test Using Transfer Standard Test Method
B2: OTH-3	Appendix D – Definitions: field reference standard meter and transfer standard

LPG/Anhydrous Ammonia Liquid-Measuring Devices Code

LPG-3 N.3. Test Drafts (Assigned along with GEN-3, Block 1, Block 2 and MFM-5)

Mass Flow Meters Code

MFM-5 N.3. Test Drafts (Assigned along with GEN-3, Block 1, Block 2, and LPG-3)

DEVELOPING ITEMS

Scales Code

SCL-6 UR.3.11. Class II Scales

Automatic Bulk Weighing Systems Code

ABW-3 A. Application, S. Specifications, N. Notes, UR. User Requirements and Appendix D – Definitions: automatic bulk weighing system

Continued on page 16

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S&T Committee Interim Summary (cont.)

DEVELOPING ITEMS

Weigh-in-Motion Systems Used for Vehicle Enforcement Screening - Tentative Code

WIM-1 Title of Tentative Code, S.1.7.1. Values to be Recorded., S.4.1. Designation of Accuracy., N.1. Test Procedures, T.2. Tolerance Values for Accuracy Class A Classes., UR.1.1. General, Table 1. Typical Class or Type of Device for Weighing Applications

Electronic Vehicle Fueling Systems - Tentative Code

EVF-3 S.3.5. Temperature Range for System Components. and S.5.2. EVSE Identification and Marking Requirements

Grain Moisture Meters 5.56(a) Code

GMA-3 Table T.2.1. Acceptance and Maintenance Tolerances
Air Oven Method for All Grains and Oil Seeds

Transportation Network Systems - Tentative Code

TNS-1 A.4. Type Evaluation

Other Items

OTH-4 Electric Watthour Meters Code under Development

WITHDRAWN ITEMS

Liquid Measuring Devices Code

LMD-4 Airport Refueling Systems – Agreement of Indications and Reset to Zero

Multiple Dimension Measuring Devices Code

MDM-2 S.1.7. Minimum Measurement

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Safety Column

Check It Out!

Elizabeth Koncki, Maryland Department of Agriculture, Weights and Measures



Director Julie Quinn, Minnesota Department of Commerce, has reported on the topic of checklists for “Using Inspection Checklists to Improve Hoist Safety” in 2010.

This article will take this idea of checklists from a single use to a common use tool for any inspection task to improve work and reduce missteps, thereby facilitating a safer work environment. As safety starts first before any task, the focus of this article will be on lists to help before a job is started and slanted to help make the job safe for the worker.

Safety gurus believe a pre-start checklist can accomplish good habits, good safety, good health. Safety caretakers should always make sure their programs have a complete safety program with all the parts such as JSA, Right To Know, training and audit. But an effective way to get people thinking about safety is to insert it into the everyday task. One way is to create a checklist, which can be based on the job safety analysis (JSA) or exam procedure outline (EPO). Then the checklist can be used further as a quick guide to frame other means of adding safety to the job, like refresher training, tailgate talks, poster and one sheet handouts. A complaint I have heard about JSAs are that so much info is presented that to refer to it at each step could take more time than allowed for the job. To lessen the pressure, consider a checklist as a tool to facilitate getting that JSA knowledge to the forefront of the employee’s thoughts as he/she is about to start a job.

The pre-start checklist is the tool you use when you are about to do a process. I am not saying to shorten the EPO, skip steps or don’t train. I mean at the beginning of a task, say a device inspection, the first step is: get your checklist. Should you use checklists? An example everyone knows of is the aviation pilot running through his required pre-flight checklist. It is a proven method. If it works very well for trained professional competent people in a well organized industry, how can I say that I will have no benefit from a checklist? I think it is worth consideration.

What Checklist?

Everyone knows a list such as milk, bread, eggs. A check list to start a job is a bit more. To be helpful, try stating the items you carry, items you use, items you wear, items to look for in that one job situation. It should state the basic word or phrase (not a long explanation – that comes during

the training or on the JSA.) It may be a literal checklist, a mnemonic phrase, a pictogram, or a part of the official report form. With modern phones and tablets, the checklist can be paper or digital. A list should be as long as needed. It may be created by the employee or the employer in conjunction or apart. Formal acknowledgement of the list would be best as then the list has some flesh, not just an idea.

Check It Off!

Now, let’s look at some examples of safety checklists. First, a list created from NIST HB 112 EPO 1. (Note that I am pulling from other professionals work. Thank you, NIST OWM.) I made this list by reading and extracting the heavily outlined safety blurbs written into the EPO. The EPO cautions that each inspection and safety program may have more specific safety concerns. Does it help you bring the safety considerations of testing a small scale into your mind? Let’s see.

NIST HB 112 EPO 1 – Retail Computing Scales

- Site safety hazards – Look/Ask
 - Electrical
 - Wet/slick
 - Obstruction
- Hazardous products at/near site – Look/Ask
- Support for scale and weight kit – Look
- PPE
 - Safety Shoes – Wear
 - Gloves (optional) – Wear
- First Aid Kit – Know
- Proper Lifting – Know

Tip: Know where your exits and emergency equipment (fire/health) are. Eyes UP.

Vehicle Safety Pre-Drive Check List

This is a vehicle safety pre-flight or pre-drive checklist. It is entirely visual. The idea is this visual check is a “do it” reminder after the employee has been trained in vehicle operation. Each person goes through the checklist visually and puts a finger on each highlighted item as they check it.

Here it is written out:

SEATBELTS	IGNITION	WIPERS	NO WARNING LIGHTS
MIRRORS	LIGHTS	HORN	SERVICE INTERVAL NOT DUE
BRAKES	TURN SIGNALS	FUEL/FLUIDS	MILEAGE LOG

Checklist Facilitation

If you are looking at your companies JSA for a job you do, or if you are at the step where you don't know where to start for a JSA (there are many online resources to help – see the NCWM Safety Program Toolbox at www.ncwm.net/resource/safety. Start with just a check list for that job, it's a good way to get the information on paper.

Another link in the Toolbox is the OSHA Hazard Awareness Training Tool game. The module on basic game of Visual Inspection is quite the engaging thing to start thinking about thinking about hazard awareness to then leap to hazard mitigation and then onto my platform for making a pre-start check list.

Also, try gathering knowledge from employees who do the job and have them share with one another. Currently several staff at my program are in training. As we work, I have asked trainers and trainees to add notes to their EPO so they understand the steps in language that makes sense to them. At the next training class, the plan is to have everyone then share and we will make a checklist together. We might even end up with a checklist and a new EPO!

Checklist in Other Applications

Checklists are not a bad tool for making good habits. Possibly a checklist can remove conflict from co-workers and the job. (The scenario of hearing about he said, she said stories and the that's-not-my-job syndrome.) With a checklist, just point to it for training or enforcement of proper job methods.

It can be part of your program for quality too when used as the check step in Plan-Do-Check-Act (PDCA aka the Deming Cycle).

Check Your Actions

Be mindful of what you wish to accomplish when using a pre-start checklist. Like any tool, it will only help if understand it and use it properly. Let me give an example where a checklist worked and where it has fallen short.

I have several trainer/trainee pairs working in the field. The trainer is very used to working solo and the trainee is very used to some previous kind of work. So when one of them set up the test measure trailer level and the other one grounds it, they are working together. But in this case no one got out the ground wire and it ended up causing friction in both parties. The trainer knows what to do, but forgets to say because is second nature and the trainee has no knowledge that he was supposed to do something. The list in this case was in the back of the EPO and so it was not reviewed before the job started.

At another time, you should have heard the yelp of surprise I let out as I was so startled when one of the trainees was driving into a parking lot and the trainee's hand came off the wheel to release the seatbelt before turning into the parking lot. I learned something that day. The clear the belt move is done in order to be "ready to act" as taught to the trainee in a previous career life. This may be fine for that career, not for the Weights & Measures career. Also, the checklist for pre-drive safety says "seatbelt". The seatbelt was worn (yea checklist!), but it does not say when to take it off. An oversight? An assumption? Poor training? Seemingly so.

As Mr. Brett Gurney highlighted in his safety article in the NCWM-NEWS 2015 Issue 2, "injuries can be prevented if the hazards are identified and controlled ahead of time." I would challenge you to form the good habit of prevention by keeping your safety on your mind and a checklist in front of you.



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Laws and Regulations Committee Interim Summary

By Michelle Wilson, L&R Committee Chair, Arizona

The 2019 Laws & Regulations Committee Interim Agenda consisted of 31 Items. The L&R Committee Agenda contained 5 Item Blocks. Each block is made up of items that are considered related subject matter in which the individual items are companion to each other. During open hearings comments were heard for items contained in blocks as part of testimony for the block as a whole. On the L&R Agenda, 13 items are part of a block and the remaining 18 are standalone items. It should be noted that the committee received two Form 15 submittals past the deadline that were added to the agenda as priority items in accordance with NCWM policy after the printing of Publication 15 (noted below as MOS-9 and MOS-10(a)). Additionally, based on review and open hearing testimony, the committee added an additional item with a voting status (item MOS-10(b)) that will be contained in the final report. Presentations and written testimony submitted to the committee are available on the NCWM website. The Fuels & Lubricants Subcommittee and the Packaging & Labeling Subcommittee both met at the Interim Meeting and reported to the L&R Committee. The L&R Committee designated the status for each of the agenda items as follows:

VOTING ITEMS

Uniform Regulation for the Method of Sale Commodities

- MOS-5 Section 1. Food Products and Section 2. Non-Food Products
- MOS-7 Section 2.4. Fireplace and Stove Wood
- MOS-8 Section 2.XX. Non-Utility Transactions of Electrical Energy (Other than Vehicle Fueling Applications)
- MOS-10(a) Pet Food Institute, Form 15, Pet Treats Section 2.37
- MOS-10(b) Pet Food Institute, Form 15 modified by the Laws and Regulations Committee, Pet Treats Section 2.37

BLOCK 5 Items (B5) – Remove Open Dating Regulation from NIST Handbook 130

- B5: WAM-1 Section 9. Requirements for Open Dating and Section 12. Powers and Duties of the Director
- B5: ODR-2 Uniform Open Dating Regulation

BLOCK 2 Items (B2) – Kerosene, LPG, and Fuels, Lubricants and Automotive Products, CNG, LNG and DEF

- B2: FLR-1 Uniform Fuels and Automotive Lubricants Regulation, Background and Various Sections Related to Fuels

BLOCK 4 Items (B4) – Tractor Hydraulic Fluid

- B4: MOS-6 Regulation for the Uniform Method of Sale of

- Commodities Regulation: Section 2.XX Tractor Hydraulic Fluid
- B4: FLR-6 Uniform Fuels and Automotive Lubricants Regulation, Sections 1.XX. Tractor Hydraulic Fluid, 1.XX. Hydraulic Fluid, 2.XX. Products for Use in Lubricating Tractors and 3.XX. Tractor Hydraulic Fluid

Uniform Fuels and Automotive Lubricants Regulation

- FLR-7 Section 2.2. Diesel Fuel

NIST Handbook 133

- NET-4 3.4. Volumetric Test Procedures for Viscous Fluids - Headspace
- NET-5 3.7. Volumetric Test Procedure for Paint, Varnish and Lacquers – Non-Aerosol
- NET-6 Section 4.8. Procedure for Checking the Area Measurement of Chamois
- NET-7 Section 4.XX. Softwood Lumber
- NET-8 Section 4.XX. Plywood and Wood-Based Structural Panels

DEVELOPING ITEMS

BLOCK 1 Items (B1) – Multiunit Package Labeling, MAV for Multi-Unit & Variety Packages and Handbook 133, Chapter 5, Specialized Test Procedures

- B1: PAL-1 Handbook 130, Uniform Packaging and Labeling Regulation, Section 2.8. Multiunit Package
- B1: NET-1 Handbook 133: Section 1.2.4. Maximum Allowable Variation
- B1: NET-2 Handbook 133, Sections 2.1. Scope, 3.1. Scope, 4.1. Scope and Section 2.3.7.1. Maximum Allowable Variation (MAV) Requirement
- B1: NET-3 Handbook 133, Chapter 5. Specialized Test Procedures

NCWM Policy, Interpretations and Guidelines

- POL-2 2.6.XX. Methods of Sale for Packages of Consumer Commodities – Federal Trade Commission (FTC) and Acceptable Common or Usual Declarations for Packages of Food – Food and Drug Administration (FDA)

NIST Handbook 133

- NET-9 Recognize the Use of Digital Density Meters

Other Items

- OTH-1 Fuels and Lubricants Subcommittee
- OTH-2 Packaging and Labeling Subcommittee

ASSIGNED ITEMS

**Note: The following have all been assigned to the Fuels and Lubricants Subcommittee.*

BLOCK 2 Items (B2) – Kerosene, LPG, and Fuels, Lubricants and Automotive Products, CNG, LNG and DEF

B2: MOS-1 Uniform Regulation for the Method of Sale of Commodities, Background and Sections Related to Kerosene, LPG, and Fuels, Lubricants and Automotive Products, CNG, LNG and DEF

BLOCK 3 Items (B3) – Engine Fuels and Automotive Lubricants Inspection Law, Section 8.6. Method of Sale, Section 2.33 Oil. Fuels and Automotive Regs. Sections 2.12 Engine (Motor Oil), 3.13 Oil, and 7.2. Test Methods and Reproducibility Limits

B3: FLL-1 Section 8. Prohibited Acts
B3: MOS-4 Section 2.33. Oil
B3: FLR-5 Sections 2.12. Engine (Motor) Oil, 3.13. Oil and 7.2. Reproducibility Limits

WITHDRAWN ITEMS

Uniform Regulation for the Method of Sale Commodities

MOS-9 American Association of Feed Control Officials, Form 15, Pet Treats Section 2.37

Uniform Open Dating Regulation

ODR-1 Section 1. Purpose, Scope and Application, Prohibited and Acceptable Terms, Section 2. Definitions, Section 3. Sale of Perishable Food and Date Determination, Section 4. Sale of Semi Perishable and Long Shelf Life Food with “BEST If Used By” Opening Date., Section 5. Placement of the “USE By” or “BEST If Used by Date, Section 6. Factors for the Date Determination of “USE By” or BEST If Used By” Dates, Section 7. Records., Section 8. Exemptions, Section 9. Preemption of Local, County, and Municipal Ordinance and Section 10. Effective Date

Uniform Fuels and Automotive Lubricants Regulation

FLR-8 Section 3.2.5. Prohibition of Terms

NCWM Policy, Interpretations and Guidelines

POL-1 2.3.2. Fresh Fruits and Vegetables

New Slate of Officers Nominated

The NCWM Nominating Committee announced the 2019 nominees to the Board of Directors at the Interim Meeting in Charleston, South Carolina. The Nominating Committee gives careful consideration to professional experience, individual qualifications, conference attendance and participation, and other factors of importance in selecting officers who will lead this organization into the future. Those who are elected will selflessly give of their time and talents for the betterment of the NCWM mission.

The following slate will be presented for election at the 104th NCWM Annual Meeting this July in Milwaukee, Wisconsin:

NCWM CHAIRMAN-ELECT

Hal Prince, Florida

BOARD OF DIRECTORS, ACTIVE MEMBERSHIP - NORTHEASTERN

Jack Walsh, Town of Wellesley, Massachusetts

BOARD OF DIRECTORS, ACTIVE MEMBERSHIP - SOUTHERN

Gene Robertson, Mississippi

BOARD OF DIRECTORS, AMC REPRESENTATIVE

Christopher Guay, Proctor and Gamble, Co.

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Explosion Hazard Warning

By Julie Quinn, NCWM Safety Liaison, Minnesota

The NCWM Safety Subcommittee was notified recently of two separate incidents of hot work (welding or grinding) on tanks connected to provers which resulted in explosions. People who were not affiliated with the tanks' manufacturer, Seraphin Test Measures, were doing the work. Fortunately, there were no injuries in either case. However, significant property damage occurred.



In one case (*left image, courtesy of Seraphin Test Measure*), the tank was on a pickup truck bed with three five-gallon provers plus a larger prover. In the second case (*image below, courtesy of Seraphin Test Measure*), the tanks and provers were mounted on a trailer. It is uncertain what cleaning was done on the first tank before hot work began. The second tank was cleaned first and then flushed with air. Apparently, the technicians did not realize that the clean tank connected via a manifold to the other tanks on the trailer. The other tanks had not been cleaned and still contained petroleum fumes. Petroleum fumes plus oxygen plus a source of ignition resulted in an explosion.

This explosion danger is not limited to prover and tank systems. It could apply to hot work on provers which are not connected to tank systems. Any time explosive fumes, oxygen, and a source of ignition are present, there is potential for an explosion.

In addition, the danger is also not limited to hot work. Any source of ignition, such as an electrical spark could also cause an explosion when provers or tanks are filled with explosive vapors and gas. Tank and prover owners should verify their equipment is installed via grounding or bonding.

A "Hot Work Plan" could prevent a similar event happening to you and your equipment, employees or contractors. Things which should be covered in the plan include:

1. Who makes the decision to authorize hot work on a prover and tank system?
2. Who contacts the system manufacturer to obtain hot work recommendations, procedures, and equipment plans to share with the employee or contractor?
3. Who selects the employee or contractor to do the work, and who communicates with the employee or contractor on pre-work precautions?
4. If an agency employee will be doing the hot work, has that person been properly trained for hot work on provers and tanks, and provided with the necessary equipment to follow procedures?
5. If a contractor will be doing the work, does the contractor have experience with hot work on tanks and provers?
6. How will it be determined that all tanks are really clean and free of explosive fumes?
7. How will hot work be done?



Continued on page 24

Explosion Hazard Warning (cont.)

8. What other hazards are in the area?
9. Who makes the final decision that hot work may begin?

At first glance, preparing such a plan for your prover and tank systems may seem to require a lot of time and work. Compared to recovering from the expense and lost time caused by an explosion, it is relatively minor. Compared to a potential life-altering injury or loss of a life, it is miniscule.

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