

# Meter Center & Technician Update



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**Field Service Advisory Committee**  
**March 5, 2019**

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*Technical Director, National DHIA*  
*Chair, ICAR Subcommittee for Recording and Sampling Devices*

# Audit Definitions

## Mandatory

- Regularly scheduled audit conducted during the centering month
- Current audit schedules are included in your folder

## Discretionary

- Deemed necessary by either the auditor or provider when
  - New location for meter center
  - Reconstruction or redesign of meter center
  - New meter technician(s)
  - New procedure(s)
  - New calibration wand (if moving from closed jar-to-jar system)
  - Change in vacuum pump/source
  - Change in receiving jar/vessel

**Meter centers are responsible for all costs with discretionary audits.**

**Centering Period Months for Meter Centers – Even Years**

Meter Centers are subject to mandatory biennial, on-site audits. Below is a schedule of target months for the on-site audits scheduled to occur during even numbered years.

January .....	
February .....	
March .....	Texas DHIA – Stephenville
April .....	
May .....	San Joaquin DHIA
June .....	
July .....	Mini-Cassia Calibration Center Vanden Bosch Calibration Center
August .....	
September .....	Dairy One Cooperative Inc. – Portable Dairy One Cooperative Inc. – Stationary
October .....	
November .....	Heart of America DHIA - Portable Mid-South Dairy Records - Portable Rocky Mountain DHIA Tillamook DHIA Washington State DHIA Willamette DHIA
December .....	Asociación Holstein de México

**Centering Period Months for Meter Centers – Odd Years**

Meter Centers are subject to mandatory biennial, on-site audits. Below is a schedule of target months for the on-site audits scheduled to occur during odd numbered years.

January .....	Minnesota DHIA
February .....	Arizona DHIA The Udder Tester, LLC
March .....	
April .....	DHI Cooperative Inc. – Stationary DHI Cooperative Inc. – Portable
May .....	Eastern New Mexico DHIA – Roswell Eastern New Mexico DHIA – Clovis Integrated Milk Testing Services Texas DHIA – Canyon Circle H Headquarters, LLC
June .....	NorthStar Cooperative Inc. – Michigan
July .....	
August .....	Lancaster DHIA DHIA West – Portable Kings County DHIA Central Counties DHIA Southern Counties DHIA Fresno DHIA Tulare DHIA Dairy Lab Services
September .....	
October .....	AgSource Cooperative Services/CRI – Portable - Dorchester AgSource Cooperative Services/CRI – Mega Test Rig and Calibration Rig - Menomonie
November .....	NorthStar Cooperative Inc. – Wisconsin
December .....	United Federation of DHIAs – Portable

# Auditing Guidelines for Meter Centers & Techs

- **Certification for meter centers is procedure specific**
  - **Standard Flow Test Method**
  - **Fast Flow Test Method**
  - **Dual Meter Test Method**
  - **Weight Test Method (Portable Scales)**
- **Certification for meter technicians is model specific**

# Changes in Auditing Guidelines

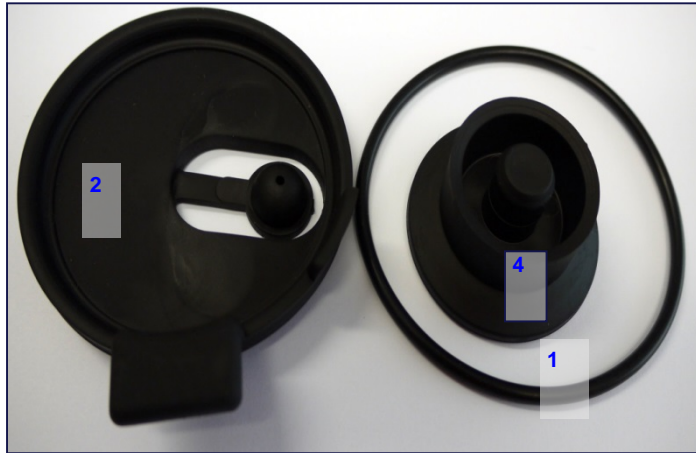
- No proposed changes in guidelines from the field.
- There is one new ICAR-certified portable meters to add to list of approved models for cows.
  - Lactocorder LC-S (also sold by Tru-Test as Lactocorder T-T)
  - Will need additional development time before actively sold in USA
  - Calibration will require a new wand with new flow reducer
- Guidelines for Meter Centers and Technicians need to be refreshed and restructured – proposed review in 2018 and to be presented at 2019 FSAC (today).
- **Still significant number of older Tru-Test standard bore (yellow) & FOSS Milko-Scope meters in service – need to have a business plan to retire these meters.**



# Certified DHI Portable Meters – 2018

Model	Model	2013	2014	2015	2016	2018
FOSS	Milko-Scope	31	31	33	32	31
Tru-Test	Auto Sampler (SB & WB Models)	17,558	16,884	16,903	15,784	16,186
Tru-Test	Economy (SB)	1,742	1,313	1,097	643	612
Tru-Test	Electronic Milk Meter	405	450	550	542	537
Tru-Test	Ezi-Test (SB & WB Models)	8,624	8,917	8,648	7,748	7,512
Tru-Test	Farmer (SB)	3,278	2,993	2,793	1,835	1,415
Tru-Test	Pullout (SB & WB Models)	39,873	39,105	39,174	36,784	34,598
Waikato	MK V (includes farmer-owned)	8,745	8,846	8,817	8,716	8,904
Waikato	SpeedSampler	179	168	132	109	101
<b>Total</b>		<b>80,256</b>	<b>78,539</b>	<b>78,015</b>	<b>72,084</b>	<b>69,795</b>

# Yearly Service Kits Are Required



# QC Issues on Meters and Parts

## Reporting and Discussions with Datamars

- QCS shared pictures and documented concerns with Datamars
- Some of these parts still remain in meter centers
- Encourage inspection and calibration prior to placing meter in service

## Assembly

- Wrong nozzle and flask combinations on Auto Sampler meters (clear nozzle with 110# flask and the opposite)
- Wrong cap on Auto Sampler meters
- Missing nozzles on EZ Test and Auto Sampler meters
- Missing lift wire on EZ Test meters
- Missing stainless steel ball in EZ Test valve
- EZ Test valve on Auto Sampler meter
- Missing jaw pads on super clamps
- Missing spring on Auto Sampler button
- EZ Test bodies without holes drilled in them



# QC Issues on Meters and Parts

## Packaging of Caps

- Caps used to be packaged in box as single item
- Now two caps with points inward wrapped in tissue paper
- **Concern is damage to the point on cap – critical for milk dispersion and accurate estimates of milk yield and for proper subsampling**

**QC  
Issues  
on  
Meters  
and  
Parts**

**Trigger Screws for Super Clamps**



**QC  
Issues  
on  
Meters  
and  
Parts**

**Burrs on Bottom of Flasks**



**QC  
Issues  
on  
Meters  
and  
Parts**

**Wings on Wash Baffle Broken**



**QC  
Issues  
on  
Meters  
and  
Parts**

**Lock Plate Material**



# Dirty Flasks on Meters



**CIP is not effective for meter cleaning in many modern parlors**

- **need to add 1 gallon of water plus detergent/acid for each meter**
- **Cannot adjust cleaning cycle – DHI is locked out of system**
- **Entire flask does not clean or sanitize**

# Dirty Valves on Meters



# FDA/PMO Non-Compliant Connectors





# FDA/PMO Compliant Options

## Vanden Bosch Testing (ID)



**5/8 to 5/8 is \$5.25**  
**5/8 to 3/4 is \$14.50**

## Mini-Cassia Dairy Testing (ID)



**5/8 to 5/8 is \$9.00**  
**5/8 to 3/4 is \$9.00**

# American Weigh Scales – PK Series

- Digital scale with low purchase price (\$22-26 each)
- 66 lb..... and 110 lb..... models available
- Easy to carry in computer bag
- Accurate but not legal for trade
- Can be easily calibrated
- Modern image for DHI providing accurate results
- 10-year warranty



# Meter Technician Training School - 2018

Thank you  
to Tennessee  
DHIA & DHI  
Cooperative  
Inc. for hosting  
the 2018 MTTTS



# On-Line Resources

## QCS resources on-line:

- **Presentations from MTTTS**
- **Fact sheets/pass fail charts**
- **Manuals for each meter model**
- **Certification exams for meter technicians (no charge)**
- **What other resources are needed?**

### Meter Centers & Technicians

[Auditing Guidelines for Meter Centers and Technicians](#)  
Version 14.0 - Effective July 29, 2014

**Meter Technician Training Presentations and Resources**  
Updated August 31, 2017

[Auditing Procedures for Meter Centers & Technicians](#)  
[Meter Technician Calibration Procedures](#)  
[Calibration of Portable Scales](#)  
[Care and Maintenance of Portable Meters](#)  
[Care and Maintenance of Super Clamps](#)

[Meter Calibration Fact Sheet](#)  
[Meter Calibration - Pass/Fail Chart](#)  
[Scale Calibration - Pass/Fail Chart](#)

**Meter and Scale Technician Certification Exams**  
Updated August 31, 2017

[Meter Technician Procedures - Certification Exam](#)  
[Scale Technician Procedures - Certification Exam](#)  
[Calibration of Tru-Test Meters - Certification Exam](#)  
[Calibration of Waikato Meters - Certification Exam](#)

**Repair and Maintenance Manuals for Approved Portable Meters**  
Updated August 31, 2017

[Tru-Test Farmer \(SB\)](#)  
[Tru-Test Econo-Valve \(SB\)](#)  
[Tru-Test Pull Out \(SB\)](#)  
[Tru-Test Pull Out \(WB\)](#)  
[Tru-Test Ezi-Test \(SB\)](#)  
[Tru-Test Ezi-Test \(WB\) \(EN\) \(ES\)](#)  
[Tru-Test Auto Sampler \(SB\)](#)  
[Tru-Test Auto Sampler \(WB\) \(EN\) \(ES\)](#)  
[Tru-Test Electronic Milk Meter \(EMM\)](#)  
[Tru-Test Data Handler \(for use with Tru-Test EMM\)](#)  
[Tru-Test Hangers and Brackets](#)  
[Waikato MK V](#)  
[Waikato Speed Sampler](#)  
[Foss Milko-Scope II](#)

# Meter Technician Training Schools – 2019

- **October 2019 in Turlock, CA**
  - **Either week of October 7<sup>th</sup> or October 14<sup>th</sup>**
  - **Combination of classroom and hands-on training**
- **Robotic (VMS) workshop to be held adjacent to meeting**
  - **Shuttle set-up, operation, maintenance**
  - **Data transfer**
  - **Strategies for testing robotic herds**

