



## International Dairy Federation

23 January 2003

### Standing Committee on Farm management

#### Meeting at IDF headquarters

Diamant Building, 80, Boulevard Auguste Reyers, 1030 Brussels – Belgium

Wednesday, 20 November 2002, 09.00 – 17.00

#### Minutes

By J Seifert (IDF) and DJ Reinemann (US)

#### **PRESENT:**

**Members:** MD Rasmussen (DK) – Chair, D Reinemann (US) – Deputy Chair, T Alfnes (NO), J Baines (GB), P Billon (FR), L Jepsen (DK), P Justesen (DK), CJAM de Koning (NL), O Lind (SE), M Madders (GB), E Manninen (FI), G Mein (AU), D Ordolff (DE), F Sangiogi (IT), B Sonck (BE)

**By invitation:** L Innings (SE), O Rønningen (NO)

**Also attended:** J Seifert (IDF) and part time: B Rowan and M Tucci (IDF)

**Apologies:** M Beauséjour (CA), R Engelmann (CH), D Nosal (CH), C Poupoulis (GR), A Schaap (NL), KL Smith (US), G Verkerk (NZ)

#### **1. Welcome, apologies, adoption of agenda**

MD Rasmussen opened meeting and especially welcomed Mike Madders, John Baines, and Per Justesen as officially new members of SCFM. A few apologies were received. A proposal for new work will be introduced by P Justesen under agenda item 6.15.

The agenda was adopted.

#### **2. Confirmation of minutes from the SC FM meeting in Toronto on 19 March 2002**

The revised draft minutes were adopted without modification. It was agreed that follow-up actions taken should be reported immediately and separately from the minutes of SCFM.

#### **3. Membership update**

The latest membership list was available.

#### **4. Administrative matters and messages from the IDF Headquarters:**

The IDF Secretariat (B Rowan and J Seifert) delivered presentations on the IDF Intranet and the draft project on the new website. It was stressed during the presentation that the latter was subject to refinement pending forthcoming consultation with professional consultants.

MD Rasmussen volunteered to assist the project team for the website project in developing the contents as relevant to the SCFM.

#### **5. International organizations and IDF internal liaison reports**

##### 5.1 ISO/TC 23 – revision of standards:

P Billon (FR) reported that there was no decision at this stage with regard to revision of ISO standards 5707 and 6690. *See also 6.13.*

#### 5.2 ISO/TC 23 – Automated Milking Systems

L. Innings (SE) reported on the meeting on Automatic Milking Systems held in Frankfurt in spring 2002. ISO appreciated the work done by IDF at its workshop in Tänikon in June 2001. Payment for the ISO-Secretariat is not in place for 2003, but is for 2002. The SCFM felt that this was important work which funding should be ensured. Debate focused on the question who the main beneficiaries were. It was proposed to request farmer organizations from IDF member countries to put in financial contributions to run the Secretariat. L Jepsen reminded that AMS is still concerning a minority of farmers and it would be unlikely that Dairy Boards or farmer organisations would financially support this work besides their personally dedication. The history shows that the work of new standards is paid directly by the industry involved. O Lind requested intellectual input from the membership in order to prepare recommendations on how to proceed.

#### 5.3 ICAR

P. Billon (FR) reported of several meters being tested. ICAR is considering how the conditions for milk meters for daily recording should be handled and also if there should be special requirements for milk meters for (quarter) milk yields of cows milked automatically since milk yields may be lower than the normal test will require.

#### 5.4 CIGR

D. Reinemann (US) reported about a successful seminar on milking machines held in Chicago.

#### 5.5 IDF Standing Committee on Animal health

J Seifert (IDF) reported from the last meeting of the SCAH. The work was still mainly focused on Mastitis. There was no intention to produce/publish a document on BSE. This is however subject to on-going monitoring by a small Action Team. The paper on GMP Code for AMS has been sent to the SCAH and comments were taken into account. The SCFM re-confirmed that the SCAH should be consulted on all animal health related matters under discussion at the SCFM.

#### 5.6 IDF Standing Committee on Dairy policies and economics

There were no specific matters to report.

#### 5.7 IDF Standing Committee on Environment incl. Life Cycle Assessment

F. Sangiorgi (IT) presented a written report on liaison matters. Members were requested to study the paper. LCA will become an important issue for the dairy sector over the next years and SCFM needs to be involved in this process.

#### 5.8 IDF Standing Committee on Microbiological hygiene

L. Jepsen (DK) reported on the main item that is the Codex Code on Hygienic Practice for Milk and Milk Products. A paper on hygienic practice for ewes and goats milk was being finalized for publication.

#### 5.9 IDF Task Force on Good Dairy Farming Practices

J. Seifert (IDF) informed the committee that the work is likely to be completed by the end of the year 2003. There will be five main sections of the code for which currently fact sheet are being developed. The latest draft of the guide is available from the IDF Intranet.

## **6. Programme of Work**

### **A. Reports of Action Teams**

### **6.1 Action Team on Vacuum measurement during milking**

A final draft article was endorsed for publication by IDF. Typographical errors should be eliminated through final editing by IDF.

Since the work was complete the Action team was disbanded.

### **6.2 Action Team on Performance during milking**

A final draft article was available. It was agreed to circulate the document (up-loaded onto the IDF Intranet before 1<sup>st</sup> of December) for comments and final approval to the membership with a deadline of 31 December 2002. No response will be taken as consent.

Typographical errors should be eliminated by final editing by IDF.

Once the work is complete the Action Team will be disbanded.

### **6.3 Action Team on Cleaning of Milking Machines**

A final draft article was endorsed for publication by IDF. Typographical errors should be eliminated through final editing by IDF.

D. Reinemann was congratulated for his excellent work. Since the work was complete the Action team was disbanded.

### **6.4 Action Team on Instruments for mechanical tests / 6.5 Action Team on Calibration of measuring instruments**

T Alfnes (NO) reported from the Action Team meeting. The new intention was to transform scientific knowledge to practical information/instruction for the testing technicians (closer to the farmers).

The instruments bulletin was an important link between manufacturers and users. It should be updated on a continuous basis.

It was proposed to close the Action Team on Instruments but to continue the work item with an extended Action Team on Calibration of measuring instruments. A target date for review of progress of November 2004 was identified. It shall then be decided whether or not to continue the work. This will give the AT one year of experience having the instrument list on the internet and with links to companies and test reports. The AT will define its target for the next meeting.

**New title: AT on Reliability of measurements of milking machines**

***AT membership: L Innings (SE) – AT leader, T Alfnes (NO), P Billon (FR), B Sonck (BE), E Maninnen (FI), O Ronningen (NO)***

### **6.6 Action Team on Evolution in Automatic Milking, milk quality, animal health, farm management**

O Lind (SE) presented the results of the Action Team meeting on the previous day. The AT had agreed on an outline of a paper titled: “Evolution in Automatic Milking: Milk Quality, Animal Health and Farm Management”.

The link to the SC on Animal health was ensured through JE Hillerton (GB) and H Hogeveen (NL) who are both members of the SCAH.

The new target date for publication of an article in the Bulletin of IDF was November 2003 in order to have a published Bulletin ready at the AMS seminar in Holland March 2004.

The membership was confirmed as indicated in the IDF Programme of Work of 1 August 2002.

Statistics on AMS farms were presented. The speed of establishment has increased significantly over the past couple of years and it is estimated that 1700 farms have AMS. An issue of concern to the dairy industry is the increased content of free-fatty acids in AMS milk.

#### **6.7 Action Team on Cluster Removers: Test for determination of switch point and delay time**

K de Koning (NL) stressed that owing to lack of time no progress has been made so far. The final deadline for completion should be deferred to November 2004. Experimental work is now starting in NL that suits the purpose of the AT directly. This would align with the timetable of on-going ISO work. A first draft will be circulated to the Action Team in due course.

#### **6.8 Action Team on Continuous Monitoring of Machine Milking**

O. Rønningen (NO) reported from the last meeting of the Action Team. A risk assessment based approach was decided upon.

The membership was confirmed as indicated in the IDF Programme of Work of 1 August 2002.

The final deadline for completion should be deferred to November 2004.

The following AT members were identified as inactive: R Vogelauer( AT), A Laurs (LV), Dzidic (HR). It was proposed to withdraw these inactive members from the Action Team.

***P Action: The IDF Secretariat will take action in consultation with the experts concerned.***

#### **6.9 Payment systems for ex-farm milk**

The article is currently in the process of publication by IDF. The SCFM thanked the author for its excellent work. The AT was closed and the chair expressed the hope that the work could be reopened as an internet based issue with a direct possibility for national committees to update their information.

#### **6.10 Dairy farming production costs**

J Seifert (IDF) reported on latest developments. An agreement was reached with the International Farm Comparison Network (IFCN). The IFCN will take on the lead.

The SCFM agreed with the proposal to re-locate this work item under the responsibility of the SC on Dairy policies and economics.

Mike Madders expressed interest in joining the IDF Action Team. The SCFM agreed that he should be appointed to the IDF Action Team and act as the liaison person.

#### **6.11 Milk flow characteristics and teat dimensions of machine milked ruminants**

D Reinemann (US) reported on progress and the work will include data from Holstein cows, various cross breeds of cows, camels, reindeer, water buffaloes, sheep, and goats.

***New title of the work item: Milk flow characteristics and teat dimensions of various machine milked animals***

**Membership of the Action Team: DJ Reinemann (US) – AT leader, T Alifakiotis (GR), P Billon (FR), D. Costa (BR), R Bruckmaier (DE), E Manninen (FI), J Négao (BR), D Nosal (CH), F Sangiori (IT), B Schulze Wartenhorst (DE)**

**Target date was confirmed: August 2004.**

## **B. New work items under consideration**

### **6.12 Good Management Practises for Milk Harvesting**

L Jepsen (DK) presented the summary of NC replies to approval for publication questionnaire no. 2402/FM. National Committees have endorsed publication pending the incorporation of comments. A revised version of the Code was available taking into account the comments of IDF National Committees and the SC on Animal health.

Three main questions were still to be discussed:

- How to handle use of wording such as “must”, “shall”, “should”.
- Definition AMS, AMI and AMU.
- Definition of abnormal milk.

#### **1. Use of wording**

The SCFM considered that the paper had the character of a recommendation. Therefore, when there is no particular reference to “must” and “shall”, “should” should always be used.

#### **2. Definitions AMS, AMI, AMU**

AMS relates to the whole system on the farm. Definitions were developed earlier by IDF. ISO has taken the approach to separate Automatic Milking System (AMS) and Automatic Milking Installations (AMI). Further discussions will take place in the ISO-group and be incorporated in the GMP-bulletin.

#### **3. Definition of abnormal milk**

It was recognized that there has been a great deal of discussion on this. The present terms “abnormal milk” and “undesirable milk” were not clear.

It was proposed to define abnormal milk as “milk unacceptable according to national or local regulation”. This would cover the term “undesirable” too. No final conclusion has been reached, but the outcome of a Workshop organized by the Danish Institute of Agricultural Sciences to be held in Denmark on 27 November 2002 will be taken into account of the final version of this document.

It was agreed to consider the 3 identified key issues further. Possible solution should be identified and incorporated by the author in a final draft.

The SCFM approved publication under the condition that the final draft will be posted on the Intranet around 10 December and the National Committees, SCFM, SCFA and TFGDFP have one month to review it. If no objection will be raised the article shall be published by IDF. L Jepsen was recognised for his thorough contribution to finalise this document.

### **6.13 Monitoring ISO work on revision of standards for machine milking**

The summary of NC replies to New Work Item Circular 02-5A was available. L Innings (SE) was confirmed as Action Team leader. The work should start in due course following the ISO workshop on the next day.

**Membership of the Action Team: L Innings (SE) – AT leader, T Alfnes (NO), R Baines (GB), P Billon (FR), B Sonck (BE), R Engelmann (CH), P Justesen (DK), E Maninnen (FI), G Mein (AU), D Ordolff (DE), O Rønningen (NO), C Simonis (GR)**

**Target date was confirmed: November 2004 for a first target date, however the AT may be needed for one more year**

### **C. Additional proposals for new work and new Action Teams**

#### **6.14 Discussion with R. Doyle (CA), PCC member responsible for Dairy Farming, on strategic priorities of IDF in the area of dairy farming including the programme of work of SCFM (goals, expansion of the group, liaisons with other organizations etc.).**

A conference call was organized. Key issues identified for discussion were:

- Need for IDF internal prioritisation and re-structuring (Structure and scope of the SCFM)
- Co-operation with other international organizations, where and how should IDF be involved?

The Chair stressed that keeping the scope of the SCFM focused was essential with regard to making progress in the technical work. Experts cannot take over work on items beyond their field of expertise neither could they take on the political role of supervising a body with a large scope. National Committees have the responsibility to act as the driving force of change if change is needed.

It was agreed that experts would reflect on these issues and submit comments to R Doyle. Discussion will be held at the next meeting of the Programme Coordination Committee in January 2003.

***P Action: All members: send comments to R Doyle, Email: [rdoyle@dfc-plc.ca](mailto:rdoyle@dfc-plc.ca) with a deadline of 15 January 2002***

#### **6.15 New work item proposal on *Working conditions and welfare of man in future dairy farming***

P Justesen (DK) presented a proposal targeted at improving the image of dairy farming overall. The proposal includes enhancements in physical working environment and social working environment for dairy farmers.

It was agreed to ask P Justesen (DK) and D Ordolff (DE) to elaborate on the terms of reference of a possible new work item. It shall be circulated to the SCFM for comment and endorsement prior to circulation to NCs.

***P Action: P Justesen / D Ordolff – prepare draft by end of March 2003***

### **7. Up-date on forthcoming IDF publications**

#### **7.1 Publication and acceptance procedures of SCFM**

It was felt that IDF cannot produce standards in the area of milking machines. The status of the published articles was that of a recommendation. However, work may be adopted directly by ISO as a standard and SCFM has to keep this in mind when producing their bulletins.

## 7.2 Forthcoming publications of SCFM

<b>Title</b>	<b>Ready for editing</b>	<b>Approx. no. of pages (DIN 4)</b>	<b>Possible IDF publication date</b>
Payment systems for ex-farm milk	received	About 30	In the final stage of publication (December 2002)
Measuring Vacuum in Milking machines	received	22	To be determined
Review of Practices for Cleaning and Sanitation of Milking Machines	received	24	To be determined
Evaluating Milking Machine Performance	10 Jan. 2003	25	To be determined
GMP Code for milking with Automatic Milking Systems	10 Jan. 2003	11	To be determined

## 8. Research work, surveys and testing results

There were no particular reports due to lack of time.

## 9. Preparations of programme for conference on «100 years with liners and pulsators» at IDF World Dairy Summit in Bruges September 2003

O Rønningen (NO) reported that the programme has been established including 5 invited paper, 10 short communications and additionally 12 posters (see attached programme). Speakers will be officially confirmed in due course. The Programme Committee expressed a strongly concern about the high registration fee of 350,- Euro. Technical experts, who are the main target group, will not be able to participate. J Seifert was requested to pass on the concern to the IDF Programme Coordination Committee. B Sonck will consult with the Belgian Organization Committee and ask for a specific registration fee for this conference.

*P Action: J Seifert / B Sonck – report back to SCFM as soon as possible*

## 10. Any other business

There was none.

## 11. Review of decisions and actions

As recorded with these minutes.

## 12. Planning for next meetings

Proposals for dates and places of coming meetings and related events:

- Confirmed: September 2003 Bruges (BE), 8-12 Sept. 100 years with liners and IDF World Dairy Summit, most likely date: 13 September 2003
- Proposed: Lelystad (NL), 25-26 March 2004, in conjunction with the Conference on automatic milking (Note: There was no support for a meeting in South Africa.)
- Proposed: End of 2004 in an emerging dairy nation.

## 13. Close

The Chair closed the meeting at 17:06.

**Programme for the Conference: 100 years with liners and pulsators, Bruges BE, 12 Sep 2003**

**0830 Opening**

**Lessons from the scrapbooks and scrapheaps of history**

**Graeme Mein, Norm Schuring**

**0900 Stimulation of milk ejection - a basic need or just a time consuming routine?**

**Kerstin Svennersten-Sjaunja, Rupert Bruckmaier, Jörn Hamann and Murray Woolford.**

A. Dzidic, J. Macuhová, R.M. Bruckmaier.

Effects of cleaning duration and cleaning water temperature on milk ejection and milking characteristics in an automatic milking system

D. Costa, Doug Reinemann. The need for stimulation in various breeds and species other than cows

**1000 Coffee break**

**1020 Pulsators and liners: where the rubber meets the teat, and what happens to milking characteristics**

**Graeme Mein, Eddie O'Callaghan, Doug Reinemann, Ian Ohnstad**

JE Hillerton, D Boast, N Middleton & I Ohnstad

Changes in teat condition and milking performance as liners age.

Daniel Weiss, Markus Weinfurter, Rupert M. Bruckmaier.

Teat anatomy and teat sphincter closure: relationship with quarter milk flow

**1125 Teat condition and mastitis**

**Morten Dam Rasmussen, Francesca Neijenhuis, John Baines, Eric Hillerton**

Jörn Hamann and Alfonso Zecconi

Machine effects on cytological defence mechanisms in the teat tissue

Carl Oskar Paulrud, Morten Dam Rasmussen. Infrared thermography as tool to evaluate the influence of liner characteristics and overmilking

**1230 Lunch**

**1330 Coffee and poster presentation**

**1430 Variation in the rubber chemistry and dynamic mechanical properties as liners age.** M Hale, D Boast, JE Hillerton, N. Middleton & I Ohnstad

**Testing of liners and measuring material properties.**

**Kees de Koning, Martin Bjerring, Bert Ipema, Odd Rønningen**

S. B. Spencer, G. W. Rogers. Optimization of Milking Machine Liners

Kees de Koning, Francesca Neijenhuis, Bert Ipema Milking characteristics of two liners

Odd Rønningen. MPC vacuum as a diagnostic tool

**1630 Closing**

## Posters

Paper no	<u>Authors,</u> <i>corresponding author</i>	Title		
S5	<u>Carl Oskar Paulrud, Morten Dam Rasmussen</u> <i>MortenD.Rasmussen@agrsci.dk</i>	Effect of machine milking on teat canal keratin		
S6	<u>Stephen B. Spencer</u> <i>sbs3@psu.edu</i>	Defining the Wave Form of Liner Wall Movement		
S8	<u>P BILLON and V GAUDIN</u> <i>pierre.billon@inst-elevage.asso.fr</i>	Effects of very low working vacuum levels on milking and udder health of dairy cows		
S9	<u>Jörn Hamann, Friederike Reinecke and Heidi Halm</u> <i>Joern.Hamann@tiho-hannover.de</i>	Robotic milking – stimulatory effects on milk yield and milk composition		
S11	<u>Dr. ir. B. Sonck, S. Saey</u> <i>s.saey@clo.fgov.be</i>	Quality system for the maintenance of milking machine installations in Belgium.		
S13	<u>J. Macuhová1, V. Tancin, and R. M. Bruckmaier</u> <i>bruckmaier@wzw.tum.de</i>	Effects of chronic oxytocin administration on mammary gland sensitivity to oxytocin.		
S15	<u>Mette Bouman</u> <i>colaveco@adinet.com.uy</i>	Analysis of the findings of over one hundred milking machine tests in high cell count herds in Uruguay		
S17	<u>Kees de Koning, Peter Huijsmans</u> <i>C.J.A.M.de.Koning@pv.agro.nl</i>	Quality system for milking machine maintenance		
S18	<u>Erik Schuiling</u> <i>C.J.A.M.de.Koning@pv.agro.nl</i>	Measuring liner performance		
S19	<u>Odd Rønningen</u> <i>odd.ronningen@tine.no</i>	Model explaining MPC vacuum		
S21	<u>Odd Rønningen</u> <i>odd.ronningen@tine.no</i>	The shape of the teat inside the collapsed liner		

Chairs: Morten D Rasmussen, Doug Reinemann, Graeme Mein

Everybody has to pay registration fee. Except invited speakers for the day in question. Other conferences must be paid for. In special cases take contact with Caroline Brooks.

The papers of the conference will probably be published in a separate Bulletin. Manuscript has to be checked by the responsible chair of each programme section.

IDF will give the necessary instructions to speakers about papers, PowerPoint template etc. Deadline for papers 31.07.03.

Seminar fee is stated by the Belgium National Organizing Committee as being 350 Euro but objections are being made.

IDF will market the Dairy Summit continuously. The programme will be launched on the Summit Internet site as soon as it's ready. Also announce the programme on SCFM mailing list.

## Summarising IDF Farm Management AT "Monitoring ISO work on revision of standards for machine milking" Meeting 21 of November 2002

By L Innings (SE)

### A. Background

The action team for revision of ISO standards for milking machines was proposed at the meeting of Farm Management in Toronto 19 March 2002.

At the meeting of ISO/TC 23/WG 1 Milking Machines, IDF was asked to review the existing standards and to prepare drafts for revised standards to be circulated to the members of the ISO working group before November 2004.

In the autumn of 2002 the IDF member countries voted for this new work item. Out of 34 member countries 22 voted for the proposed work item and 12 did not answer. The proposal was accepted.

At the voting the member countries proposed the following members for the action team:

Lars Innings, Sweden, leader of the action team  
Terje Alfnes, Norway,  
John Baines, United Kingdom,  
Pierre Billon, France  
Ruud Engelmann, Switzerland,  
Per Justesen, Denmark,  
Dieter Ordolff, Germany,  
Christos Simonis, Greece  
Bart Sonck, Belgium,

Interest in the work is shown by:

Kees de Koning (Holland),  
Esa Manninen, Finland  
Dusan Nosal, Switzerland  
Eddie O'Callaghan, Ireland  
Steve Spencer, USA

The meeting 2002-11-20, SC FM decided to form a new action team "**Monitoring ISO work on revision of standards for machine milking**". L Innings (SE) was confirmed as Action Team leader. The work should start in due course following the ISO workshop on the next day.

As members of the Action Team SC FM identified: Lars Innings (SE) – AT leader, Terje Alfnes (NO), John Baines (GB), Pierre Billon (FR), Ruud Engelmann (CH), Per Justesen (DK), Graeme A. Mein (AU), Dieter Ordolff (DE), Odd Rønningen (NO), Christos Simonis (GR) Bart Sonck (BE),

It was also decided that, team members and others shown interest not present at the meeting should be asked how they desire to participate in the work.

An editing committee consisting of Lars Innings, Terje Alfnes, Esa Manninen and Pierre Billon had a meeting 2002-11-20. They prepared the action team meeting by making a proposal for "General principles" to be used as an agenda. **These "General principles" are given in the report in *italic*.**

## Report from the meeting

Present at the meeting were:

Lars Innings (SE) – AT leader  
Terje Alfnes (NO)  
John Baines (GB)  
Pierre Billon (FR)  
Per Justesen (DK)  
Kees de Koning (NL),  
Esa Manninen (FI),  
Graeme A. Mein (AU)  
Dieter Ordolff (DE)  
Douglas J. Reinemann (US)  
Odd Rønningen (NO)  
Bart Sonck (BE)

### *1. Adoption of agenda*

The “General principles” was adopted as agenda.

- 2. Our goal is to get standards that can be used in most of the milk producing countries. This leads to that the requirements and test methods must be interpreted to practical conditions.*

This discussion came up since the last revision. Either the standards shall **include more annexes**, where more explanation is possible, or to keep only the demands in the ISO standard and to **make reference to an IDF document** for more explanations.

- 3. The standards should include more drawings to make them more attractive to read and easier to understand. Or is an additional explanation document needed including background information (“why”)?*

See 1. More drawings might help to understand. Main idea is to expand the annexes.

- 4. We propose ISO 3918 to be expanded to cover as far as possible all milking machine definitions/terms in common use world -wide and preferably mention other used terms for the definition in e.g. a bracket.*

The last update of the ISO standard only contains definitions of terms in the standards and where we have demands.

The action team agrees to include **all type of definitions in 3918** with the scope of milking machine installations with focus on the hardware.

- 5. The requirements for milking and cleaning have the first priority to be fulfilled, but over dimensioning of vacuum pumps and milk lines should be avoided to reduce energy consumption, noise level and so on.  
How to handle the wishes of over dimensioning?*

- *More units?*
- *Changing to other units without changing the fixed installation?*

We should also **focus on the energy**-side. Manufacturer shall give information about energy consumption. Nordic countries would like to have this idea included.

Graeme A. Mein expresses that current standards already have led to decrease of energy consumption in USA. In the standard we must focus on standards for milking machines, energy might be more for IDF – explanation to focus on energy, water and chemical savings.

Lars Innings expresses the need for having definitions for the whole milking machine functioning, not only for components. General feeling is that we should look to the **whole milking machine performance**.

EU has directives about safety – updating a part means that manufacturer has to state safety for the whole machine. The same should apply for milking machines. E.g. if an installer updates a milking machine he is responsible for the performance of the milking machine. Approach like we did for milk pipelines.

Overall performance – such as regulation loss: More explanation in 6690 is needed to clarify what effect it has and the reason for it, including way of testing.

Should the standard include anything about future changes in an installation?

Increased milk production, number of cows etc.

Standards for exchanging milking units without affecting fixed installation?

In many cases it is the choice of the farmers.

Overdimensioning of milking parlours is common sense today.

If building a parlour for 60 units, installing 40, how to use the standards. Vacuum pump is easy. Cleaning might be more difficult.

Effect of how to **handle overdimensioning should be in the standard**.

**6. *The principle in the dimensioning of airlines shall be the requirement for airflow and not the actual capacity of the vacuum pump at the specific installations. (Airline between the regulator and the vacuum pump should be dimensioned according to the actual pump capacity?)***

Basically: This is up to the decision of the farmer.

A better performance of the milking machine by using less pump capacity is achieved in some cases.

Should we look to effective reserve or the required effective reserve?

Today effective reserve is used for the further measurements.

Graeme A. Mein thinks this issue is not most important, we are lacking information on clusters.

Terje Alfnes has the feeling that current tests are conflicting.

General feeling that current standards including regulation loss have improved testing of milking machines. We should focus more on the cluster!

Lars Innings: What can we learn from vacuum measurements with respect to liner movement. Paper to explain how things are working. Most technicians don't understand how milking machines are operating.

New standard should **involve vacuum stability and the cluster issue**.

**7. *Would it be relevant to set a requirement for the vacuum stability instead of effective reserve?***

We have a demand of 2 kPa vacuum drop caused by milk flow in the milk lines. For the vacuum system we have the same limit when we measure the effective reserve, but in this case the demand in the standard is the effective reserve (l/min). The reason for the effective reserve is to keep stable

vacuum.

It was decided to **evaluate the 2 kPa vacuum drop** demand and eventually have recommendations for **effective reserve in an annex**.

**8. Concerning the dimensioning of the milk line the experience of the present standard is that the alternatives are not used. Different organisations have chosen one or few of the alternatives. The intension was to use the alternatives for dimensioning at a specific farm.**

In many cases the worst case scenario is used in practice, resulting in only one or two alternatives. John Baines expresses the alternatives are used within his company, taking into account that a manufacturer is not always aware about the farmer.

Esa Manninen is also pleased about the current standard with respect to these alternatives.

Kees de Koning reports about Dutch experiences with ISODIM program.

Pierre Billon has an excel program to calculate diameters.

Alternatives are used in several ways.

Nordic experiences showed that current standards are working well.

General feeling is that this topic does not need a big update.

Perhaps more explanation about how to use horizontal lines and/or sloped lines. Shall the slope (and hereby the requirement) be measured at every 1 m, every 5 m or what?"

Nordic countries have proposal to extrapolate the formula for sloped lines to near horizontal lines.

**9. We propose to organize the revision work in small groups dealing with following subjects:**

*a. Cleaning*

Work has been done by IDF – refer to this in an informative annex or just refer to the IDF Bulletin with the cleaning report. Suggestion from Switzerland for this part stating ISO should define more precise standards. Just a performance objective for cleaning seems to be sufficient in this standard (machine should be cleaned in such a way that milk quality is not affected negatively. Proposal to form a working group that shall define a proposal for a minimal standard and guidelines for cleaning/cleanability to be published in an IDF document: Action by Douglas J. Reinemann, **members** Odd Rønningen and Dusan Nosal. Lars Innings will ask Dusan Nosal.

*b. Milking units (Liners, pulsation and teat dimensions)*

Proposal that a group is formed to make a proposal for a performance standard and the ways this can be achieved. All explanations can be in an IDF-document. **Action by Graeme A. Mein, members Esa Manninen, Pierre Billon, Lars Innings, Odd Rønningen, and John Baines.**

*c. Milk line dimensioning*

Objective: Evaluation of current use of standard. There seem to be different approaches, identify the differences. **Action by Kees de Koning, members Per Justesen, Bart Sonck, Odd Rønningen, and Dieter Ordolff.**

*d. Vacuum stability (gradient and transient fall) in the vacuum system*

Objective: Which standards do we need? Paper from Douglas J. Reinemann about dynamic efficiency, how to measure stability of the regulation. Douglas J. Reinemann believes that approach is a theoretical one, never occurring during milking. Graeme A. Mein believes over and undershoot of vacuum regulator might be more useful. **Action by Lars Innings, members: Terje Alfnes, and Graeme A. Mein.**

*e. Other things*

All groups **have to give definitions**. Lars Innings will collect definitions

Proposal to remove all annexes from the ISO document. Annexes should be published in an IDF document. **Lars Innings will contact Rolf Thesslin and IDF** about these possibilities. ISO standard can be quite compact.

We have received input from **AT Clause 16**. In addition we expect to receive input from **AT cluster removers** , **AT continuous monitoring**.

**Milking time tests must be involved**, because we are speaking about overall performance.

Discussion about **installation test** when buying a milking machine. Should we have a 'technical test' or also including labour organisation? **Dieter Ordolff and Bart Sonck** will present some data about labour organisation

What about **small ruminants** ? It could be a separate standard or even incorporated. Another possibility is to make a reference to the available IDF document. It was the meaning of the meeting **to decide this later**.

**Stray voltage**: Decided that it should not be included in this standard.

All groups should also look to the necessary **measurements and accuracy** needed.

What about artificial teats as described now and the idea of Eddie O'Callaghan. Odd Rønningen is in favour of using the Irish artificial teat. Pierre Billon reports that the flow capacity is limited. Should be in the Milking units working group – sub group with **Pierre Billon, Odd Rønningen, and Eddie O'Callaghan** . Eddie O'Callaghan should be asked to participate in milking units group.

Individual comments for update already received will be send to all members of this AT. **Action by Terje Alfnes**.

Comments from Nordic group will be send to all members. **Action by Esa Manninen**

**Safety issues**: If possible, we should give references

National committees gave also names to join this AT. **Lars Innings will contact** those people. They will also receive the minutes of this meeting.

#### ***10. Time table:***

- Proposals from the groups: March 2003
- The draft for circulation in IDF: March/April 2004
- Report to ISO TC 23: November 2004

**Timetable is accepted.**

Lars Innings closed the meeting at 11.55.

Esa Manninen gave a short presentation about liner testing in Finland.

## Groups and responsibilities

### Decided working groups and tasks to present a result before end of March 2003:

Cleaning:	Action Douglas J. Reinemann, members Odd Rønningen, Dusan Nosal to be asked.
Milking units:	Action Graeme A. Mein, members Esa Manninen, Pierre Billon, Lars Innings, Odd Rønningen, John Baines. Eddie O'Callaghan to be asked.
Artificial teats:	Pierre Billon, Odd Rønningen, Eddie O'Callaghan
Milk lines:	Action Kees de Koning, members Per Justesen, Bart Sonck, Odd Rønningen, Dieter Ordolff
Vacuum stability:	Action Lars Innings, members Terje Alfnes, Graeme A. Mein.
Labor organisation:	Action Dieter Ordolff, Bart Sonck
Definitions:	Collector Lars Innings
ISO-IDF cooperation:	Lars Innings
Individual comments:	Terje Alfnes
NMSM comments:	Esa Manninen

### Responsibilities

Lars Innings	ISO-IDF cooperation Definitions Vacuum stability
Douglas J. Reinemann	Cleaning
Graeme A. Mein	Milking units
Kees de Koning	Milk lines
Dieter Ordolff	Labor organisation
Esa Manninen	NMSM comments
Terje Alfnes	Individual comments

### Group members :

Lars Innings	Milking units
Odd Rønningen	Cleaning Milking units and artificial teats Milk lines
Graeme A. Mein	Vacuum stability
Esa Manninen	Milking units
Pierre Billon	Milking units and artificial teats
John Baines	Milking units
Bart Sonck	Milk lines Labor organisation
Dieter Ordolff	Milk lines
Terje Alfnes	Vacuum stability
Eddie O'Callaghan	Milking units and artificial teats