



MINUTES
GASKET WORKING GROUP
MEETING

Dates: March 7, 2019

Time: 9:00 AM – 10:30 AM EST

Vehicle: Go-to-Meeting

Present:

Larry Sheffield – Inertech larrysheffield@inertech.com
Antonio Morales – Empak Spirotallic Mexicana SA DE CV technology@empak.com.mx
Patricia Pichardo – Empak Spirotallic Mexicana SA DE CV desarotecn@empak.com.mx
Thomas Jessup – EGC thomjessup@egc-ent.com
Greg Cole - A.W. Chesterton greg.cole@chesterton.com
Martin Coulthard – James Walker martin.coulthard@jameswalker.biz
Chett Norton – Triangle Fluid chett@trianglefluid.com
Jim Drago – Garlock jim.drago@garlock.com
Antonio Escalona - Empak Spirotallic Mexicana SA DE CV - laboratorio@empak.com.mx
Frank Herkert - Amtec fh@amtec.de
Ron Frisard – A.W. Chesterton Ron.Frisard@chesterton.com
Matt Wasielewski – Yarmouth Research matt@yarmouthresearch.com
Henri Azibert - FSA henri@fluidsealing.com

Absent:

Mark Neal - FSA markneal@europeansealing.com
Greg Raty – Slade graty@slade-inc.com
Mike Shorts – Triangle Fluid mike@trianglefluid.com
Stephen Woolfenden – Eriks Group NV Stephen.Woolfenden@eriks.co.uk
David Mitchell - ESA daemitch@btinternet.com
Randy Wacker – InnerTech randywacker@inertech.com
Daniel Bisset – W.L. Gore dbissett@wlgore.com
Sylvia Flegg – Triangle Fluid sylvia@trianglefluid.com
Lucas Norton– A.W. Chesterton Lucas.Norton@chesterton.com
Jacque Manders – South West Research jacqueline.manders@swri.org
Arthur Hernandez – Nippon Pillar arthur.hernandez@nipponpillar.com
Laverne Fernandes – Garlock laverne.fernandes@garlock.com
Matt Bonagura – A.W. Chesterton Matt.Bonagura@chesterton.com
Francesca Torriani - General Packing francescatorriani@generalpacking.com
María García Gorrichategui - Montero Fye S.A laboratorio@monterofye.com
Constant Olivier – Technetics constant.olivier@technetics.com
Lee Gillette – W.L. Gore lgillett@wlgore.com
Philippe Pottier - Siem philippe.pottier@siem.fr
Chiara Sozzi – General Packing chiarasozzi@generalpacking.com
Charlie Field – W.L. Gore cfield@wlgore.com

Reiner Zeuss - SGL Group
Barry Anderson – Technetics
Juan Mayer – Empak Spirotallic Mexicana SA DE CV
Mike Boyd - Triangle Fluid
Dean McLean - A.R. Thomson

rainer.zeuss@sglcarbon.com
Barry.Anderson@technetics.com
mayer@empak.com.mx
mikeb@trianglefluid.com
McLean.Dean@arthomson.com

1) Approval of Agenda

2) SWG Testing Standard

- **Round Robin Progress**
 - **Test results or observations**
 - **Results from Garlock – Empak – Yarmouth – A.W. Chesterton/Amtec (reformat to follow Standard reporting)**
 - **Testing complete but report to be received - **James Walker** in process and working on reporting format – Please send the reports to Henri for compilation when completed. AMTEC sent spreadsheet of results.**
 - **Current limits in draft:**
 - **Concentration and mass flow rate class levels determination – Less than 25 ppm for class 1 - class 2 Less than 50 PPM (methane or helium)**
 - **Mass flow rate measurement**
 - **Class 1: less than 2.18E-03 mg/m/s or 2.73E-04 mg/s (methane); less than 5.45E-04 mg/m/s or 6.84E-05 mg/s (Helium).**
 - **Class 2: less than 4.35E-03 mg/m/s or 5.46E-04 mg/s (methane); less than 1.09E-03 mg/m/s or 1.37E-04 mg/s (Helium).**
 - **Second round robin to double check mas flow limits (Frank will check) –Methane density used at standard pressure and temperature conditions – reported leakage rates from James Walker higher than limits:**
 - **Maximum Leakage through the test duration: 0.0086mg/m/s**
 - **Average Leakage through the test duration: 0.0024mg/m/s**
 - **AMTEC**
 - **Used mean diameter of gasket and also used differential pressure method ppm method and concentration method - good correlation on higher ppm values but not for low values in the single numbers of ppm values – all tests done on methane – working on good agreement with FID and DDA – (FID value calculated DDA value**

measured) - there might be differences in terms of permeation of the gas into the gasket element which is taken into consideration and measured in the differential pressure method but not in the ppm method. Use 4 hours for better correlation for next test to see if there is difference – now the standard call for 2 hours – highlight so the time frame can be revisited

- Stress used from ASME B16.20 – for test 3 and 4 simulate loss in gasket stress due to thickness of gasket change in heating up
- Frank to recalculate using OD of gasket – The gaskets tested in this report were the ones received from Thom – Later on will take measurement from the first batch of gaskets from Chett Norton and it will be interesting if the ppm levels are lower, i.e. if these gaskets fall within the class one, as opposed to the results on the EGC sent gaskets that are class 2
 - **Henri** to distribute results with next meeting notice
- After more results coming in, we can review the limits in mass flow measurement and duration/time to take measurements
- Second round robin - test both Kammprofile and a low-quality gasket - Test facilities, Chesterton, Garlock, James Walker, Yarmouth Research, AMTEC, Empack
- Triangle Fluid and EGC will provide samples- Kammprofile sent out – will take a bit longer to get to Europe - The generic gaskets 3” class 300# flange were sent out by Thom and received by the various test facilities
- Ron and Chett to draft intro noting PCC-1 methodology and to add nomenclature warning for pressurized flammable gas – Chett got together with Ron – Not much to pull, this is just a question for liability. One sentence to be added possibly also on best practices from Matt and safety considerations. **Chett** to coordinate

3) Handbook

- Publication on Website
 - Posted in ESA and FSA websites

4) KnowledgeBase

- Sealing sense articles live
- Folder in SharePoint to collect material
- Training material uploaded needs editing

- Chett broke down handbook into sections – Posted on SharePoint – All were to look at topics and volunteer
- Format can be pdf from manual as it might be easier – Let us start with breaking it down into chapters into pdf files – later on we can always do PowerPoint files.
- Form working group – Chett working with Sylvia, Ron, Larry, Thom – Repository not set up yet so the work cannot be done directly in the KnowledgeBase but get all files ready in SharePoint, first in the in progress folder, then in the released files folder – John Galla discussed with Chett for Repository activation, but for now work within SharePoint to put files in the “In Progress” folder - Next meeting to be scheduled – Chett to organize

5) Standards

- FSA Standards - List of corrections needed
 1. FSA-MG-501-02 STANDARD – to be retired with watermark – Chett was working on it – Thom to talk to Hope to find out where it stands – in progress
 2. Steam Test ASTM F2716 and M&Y Statement - files with watermark – Completed – to be posted on website – Thom and Chett to check
 3. (FSA-NMG-201-02) Recommended Practices for Determination of Extractable Sulfur for Non-Metallic Gasketing Material - Chett reviewed – draft to be done and then be reviewed by group – Updated standard and comments from Jim Lingenfelder
 4. (FSA-NMG-202-02) Recommended Practice for Determination of Water Soluble Chlorides – Chett reviewed – different methods – remove silver nitrate titration and change to Ion chromatography as preferred – need feedback from group – Draft to be done by Chett and then Henri to send out for review - Updated standard and comments from Jim Lingenfelder
 5. FSA-NMG-204-02 RETIRED – all set
 6. FSA-G-604-07) Oxidation Test Standard for Flexible Graphite Materials – Thom to review and coordinate update with Chett – in progress
- ASME B16.20 – Edition Year is 2017 - SWG room temperature test, and elimination of double jacketed gaskets – Next Edition will be 2022 - Much interest in stress of Kammprofile gaskets - Next meeting Florida March 25, 2019 - Matt will be at the meeting
- API SWG testing adoption
 7. Other types of gasket – (Kammprofile) second round robin might spark interest – Need coordination and contact – higher temperature testing expected to be topic of discussion

6) Sealing Sense Articles

- i. Articles schedule

1. 4/1/2019 – 8/1/2019 – 12/1/2019 – (1200 to 1800 words 2+ images)
- ii. **Topics possibilities**
 1. Graphite and oxidizers 4/1/2019 – in progress **Thom**
 2. Bolting 8/1/2019 **Randy**
 3. Test Standard release or development - Later in the year
 4. Material article possibility from Sylvia Pan – HP Materials Solution - span@hpmsggraphite.com – **Chett** to follow-up
 5. Need some more topics – FRP PTFE gaskets sealing stress question came in – Henri forwarded to Chett and Ron to use as social media content – Recommendation made
- iii. **Other Publications**
 1. BIC (writing guidelines available - 400 to 600 words)
 2. KCI
 3. Flow Control
- 7) **Training – Webinars**
 1. Webinars – Anti-seize / K factor series– **Ron** to organize using existing presentation
 2. KCI Valve World Americas possibility – meeting about short course on packing and gasketing, even possibility of expansion joints and mechanical seals – looking promising
 3. Contact ISA for possibility as well
 4. Webinars based on the manual
- 8) **Government Affairs**
 - i. **Environmental Regulation**
 1. Mexico issued draft of methane and hydrocarbon rule – Comments prepared for FSA response – translated and filed with the Mexican Government – Waiting for release – Antonio to monitor and waiting for decision from new government
 2. EPA Rule on Methane still in effect
 3. States action monitoring
 - a. Pennsylvania (permit rule went into effect August 8), Colorado, Wyoming – Ohio EPA DAPC Rulemaking - New Oil & Gas Industry Rules - Requesting Stakeholder Input
 - b. California Governor Jerry Brown signed new renewable energy mandate that by 2025, 50% of all power will be derived from renewable sources, and 60% by 2030.
 4. Canada rule –regulations respecting reduction in the release of Methane and Certain volatile Organic Compounds released April 26, 2018 - Implementation is 2020 – Alberta proposed regulation - comments submitted on 5/27/18 – British Columbia has released their regulation -
 5. IED (Industrial Emissions Directive) BATIS (Best Available Techniques Information System) and Brefs – Upgrade the ESA

*document on Sealing with final draft just needing expansion
joints section images for release*

ii. Trade

- 1. Environmental Goods no progress**
- 2. Tariffs trade wars - full blown with Europe and Canada (steel and aluminum) – Deal with Mexico and Canada needs ratification – Confusion reigns – Meeting between US and China going on**
- 3. CEO FSA lunch asked that Government Affairs committee look into it due to added costs - FSA President sending letter to Wilbur Ross, United States Secretary of Commerce. Letters to be drafted for Senator Ron Johnson action on reversing tariffs – Need example of how it hurts business – use template - Hope sent Government Affairs committee initiative documents to members**

iii. Brexit - Stalemate – No deal currently – Parliamentary vote was defeated – possibility to go for Authorised Economic Operator (AEO) trusted trader status – marking of origin - keep monitoring

iv. EU Drinking water standards –EU Drinking Water standards - Drinking Water Directive (DWD) in Europe. European Parliament has published report in favor of one uniform test – EDW very active and published a paper questioning the new approach – 10-member states report also issued saying the same thing in favor of following the EDW proposal. Encouraging but no formal decision yet – keep monitoring – Current timeline:

- 1. 26 June 2019: Council reaches an agreement on a common position on the DWD**
- 2. October 2019: The new European Parliament (elected in May 2019) will be ready for negotiations with the Council. Its position should be based on the current position of the European Parliament.**
- 3. October – March/April 2020: Negotiations between the European Parliament and the Council (trilogues) to reach an agreement on a common text**
- 4. April 2020: Final adoption of the DWD**

v. Food contact Graphite – EC 1935/2004: Follow German regulation and declare compliance from ESA - Schunk conducted migration test with also MAMAT involved and another Test work was carried out by an accredited laboratory, DAkkS – set baseline and limits

9) LCC – maybe after KnowledgeBase

10) Membership

i. Klinger

ii. SGL

iii. South West Research

11)Marketing

- i. promotion of Handbook*
- ii. FSA, ESA website viewing – ESA gets activity and analytics on website – review details **Chett** and **Mark***
- iii. Social media – Eight-member team taking a week each on Twitter and LinkedIn – Ron is on this week, did one on gasket manual and one on safety*

12)Outreach Projects

- i. VMA – Updating valve basics going from one 2 ½ day class to 2 1 ½ day classes – after that they will consider cooperation - Valve Industry Knowledge Forum, April 9-11, 2019*
- ii. HI*
 - 1. Guide books recommendation – Commercial Buildings, packing write-up –MS handbook update and revise packing power consumption in LCC section*
 - 2. Need for Lunch and Learn presentation for October of 2019 meeting – (**Chett** possibility – basic training material or other topic, **Henri** to notify HI Associate Member Committee) -Co-location of FSA and HI meetings in Pittsburg PA (Week of October 21)*
- iii. KCI Valve World Americas 2019 - Ron reached out for training opportunities – One packing and one gasketing – Thom will participate*
- iv. Industrial Valve Summit 22/23 May 2019 in Bergamo*
- v. API – Spring Refining Meeting – May 06, May 09, 2019, Grand Hyatt San Antonio, San Antonio, Texas - Issue with higher temperature testing and safety with methane – Matt, Greg, and Jim will attend*
- vi. OTC conference in Houston same week as refining meeting*
- vii. MSS interest in the gasket test – Lucas reached out but has not had answers – no response expected at this point*
- viii. Power Gen – no plans*
- ix. Chinese Packing and Gasket Association – Keep channels open*

x. Indian Sealing Association

xi. VDI -

xii. BHRG

xiii. ISA

13)New Business

a) Technical meeting schedule Gaskets May 1, Packing May 2, MS May 3, EJ on April 30 – Hope should be sending out meeting reminder

14)Next meeting

a) April 18, 2019, 9:00 AM EDT

15)Adjournment

hva 03/07/2019