****

**COMPRESSION PACKING**

**WORKING GROUP**

**Go-to-Meeting Conference**

***January 7,2019***

**Present**:

Larry Sheffield – Inertech [larrysheffield@inertech.com](mailto:larrysheffield@inertech.com)

Hans Dekker – A.W. Chesterton [hans.dekker@chesterton.com](mailto:hans.dekker@chesterton.com)

Antonio Morales - Empak Spirotallic Mexicana SA DE CV [technology@empak.com.mx](mailto:technology@empak.com.mx)

Ron Frisard - A.W. Chesterton [Ron.Frisard@chesterton.com](mailto:Ron.Frisard@chesterton.com)

John Morton – John Crane [John.Morton@johncrane.co.uk](mailto:John.Morton@johncrane.co.uk)

David Mitchell – ESA [daemitch@btinternet.com](mailto:daemitch@btinternet.com)

Patricia Pichardo – Spirotallic Mexicana SA DE CV [desarotecno@empak.com.mx](mailto:desarotecno@empak.com.mx)

Chris Boss - Garlock Sealing Technologies [chris.boss@garlock.com](mailto:chris.boss@garlock.com)

Ralf Vogel – Burgmann Packing [ralf.vogel@burgmannpackings.ie](mailto:ralf.vogel@burgmannpackings.ie)

Mandy Wittenberg – W.L. Gore [mwittenb@wlgore.com](mailto:mwittenb@wlgore.com)

Greg Cole – A.W. Chesterton [greg.cole@chesterton.com](mailto:greg.cole@chesterton.com)

Henri Azibert - FSA (603) 475-4335 [henri@fluidsealing.com](mailto:henri@fluidsealing.com)

**Absent:**

Mike Kupin – Garlock Sealing Technologies [mike.kupin@garlock.com](mailto:mike.kupin@garlock.com)

Linda Finnegan – New England Braiding [Linda@anti-keystone.com](mailto:Linda@anti-keystone.com)

David Edwin Scott – ESA [david.edwinscott@europeansealing.com](mailto:david.edwinscott@europeansealing.com)

Jim Drago - Garlock Sealing Technologies [jim.drago@garlock.com](mailto:jim.drago@garlock.com)

Martin Coulthard – James Walker [martin.coulthard@jameswalker.biz](mailto:martin.coulthard@jameswalker.biz)

Jakub Marczyk – James Walker [jakub.marczyk@jameswalker.biz](mailto:jakub.marczyk@jameswalker.biz)

Greg Raty – Slade [graty@slade-inc.com](mailto:graty@slade-inc.com)

Mark Richardson – James Walker [mark.richardson@jameswalker.biz](mailto:mark.richardson@jameswalker.biz)

Lee Gillette – WL Gore [lgillett@wlgore.com](mailto:lgillett@wlgore.com)

María García Gorrichategui - Montero Fye S.A. [laboratorio@monterofye.com](mailto:laboratorio@monterofye.com)

Mark Neal – ESA [markneal@europeansealing.com](mailto:markneal@europeansealing.com)

Thomas Jessup – EGC [thomjessup@egc-ent.com](mailto:thomjessup@egc-ent.com)

Michael Hamoy – John Crane [Michael.Hamoy@johncrane.com](mailto:Michael.Hamoy@johncrane.com)

Lewis Geoffrey – Dupont [Geoff.Lewis@dupont.com](mailto:Geoff.Lewis@dupont.com)

Francesca Torriani - General Packing [francescatorriani@generalpacking.com](mailto:francescatorriani@generalpacking.com)

Rob Garlock – EGC [robertg@egc-ent.com](mailto:robertg@egc-ent.com)

Laverne Fernandes - Garlock Sealing Technologies [laverne.fernandes@garlock.com](mailto:laverne.fernandes@garlock.com)

Arthur Hernandez – Nippon Pillar [arthur.hernandez@nipponpillar.com](mailto:arthur.hernandez@nipponpillar.com)

Sylvia Pan – HP Materials Solution [span@hpmsgraphite.com](mailto:span@hpmsgraphite.com)

1. ***Approval of Agenda***
2. ***Handbook***
   1. ***Release***
      1. ***Posted on FSA website. ESA still has third edition – Ralf to check with Mark and David, Henri to send again as a reminder to Mark***
      2. ***Wrong cover in the FSA website for the 4th edition – Henri to send email to Hope.***
      3. ***Sealing Sense Article announcing release will be appearing in the February edition***
      4. ***Standards spreadsheet is also on the website – Need someone to own the spreadsheet - Ron will check for updates and turn into pdf for website posting***
3. ***Joint FSA ESA Projects-***
   1. ***LCC Power consumption formula***
      1. ***Double checking results and formulas - cost of effluent high $100 per 1000 gallons or 19.85 Euros/ m3 – Need to differentiate between packing flushing arrangements: flushing with bushing (high volume), flushing between packing (low volume), flow through flushing (high volume) - reference HI Slurry standard figures 12.3.8.3.1a & b & c. - Leakage factor imperial units for class 1 and 3 goes to 0 in assumptions effects heat generation and Ryan is looking into it***
      2. ***Meeting with Mark Savage, Ron Frisard, Ryan Neris and Henri to go over spreadsheet. Next meeting January 21, 2019, at 10:00 AM***
      3. ***Change of the LCC platform – No Schedule yet but John Crane has committed support***
   2. ***Valve Packing Study*** 
      1. ***CETIM prepared Spreadsheet – Need to make it a bit more user friendly - More tests with different variables – 2 graphite ring references with their associated installation procedures; 4 pressure levels: 20, 40, 60 & to 80 bar; 2 stem movement types: rotation & translation; 2 test for each configuration – Still need variation on installation procedure – question on working on more tests such as different types of packing – Presentation for Valve World 2018 – Hans listened to the presentation and not much new was there. Hans will send presentation to Ralf/Henri***
   3. ***ESA – PD 002 (BS 4371)***
      1. ***Draft number 5 completed - gaps concerning quality of packing – there is good information for graphite and carbon ––Specifics on quality packing for Vegetable fiber, aramid, Novoloid, etc. – Need to differentiate between poor quality packing and high-performance ones – Some information received but still need more needed – Discussed at ESA meeting – Associate members can bring details for PTFE on yarn and dispersions and also need test method – Some ESA members Lanzing, W.L. Gore, Teadit, Fiberline, have info on PTFE - Anything on PTFE quality would be most useful***
   4. ***K Factor study/ASTM WK 56884***
      1. ***Ron to follow up such as possible joint study or webinar on anti-seize for packing and gaskets – Need to find out who is on the committee - Ron got a hold of Tom Blake (possibility of joining FSA) – Ongoing***
4. ***Education projects.***
   1. ***FSA Webinar(s) Series on bolt lubrication - In progress envision two parts, K factors, trying to get Jet Lube involved - Ron to follow up – possibly schedule for the second quarter***
   2. ***Use new handbook to base webinars – Idea to do a series now that the manual is released – to be organized in a couple of months – do a three- or four-part series – goal middle of February, March and April, and also record them – Looking for volunteer to be a co-host – one or two hours to prepare – Volunteers? Greg Cole – Chris Boss also interested (did one with Phil before) – Ron to organize***
   3. ***ESA Packing training material*** 
      1. ***ESA working on the animations and voice over***
      2. ***Delivery/platform method on new website with new software tools - PowerPoint conversion still in process – convert to video and then uploading the video, so it is lengthy – First piece is done and scheduled to be live by now - platform is there and can also be used for other projects with more possibilities that just using PowerPoint, it is a free program to enroll in – When active make sure there is link from FSA website – Need additional pictures -*** ***Expansion joint photo badly needed by David***
   4. ***KnowledgeBase***
      1. ***Sealing Sense Articles Repository Active. Linda volunteered to be responsible for Packing articles.***
      2. ***Folder set up on SharePoint to gather material – Topic list started by Linda –discussed format at the Annual Meeting – Could use Word documents or PowerPoint Presentations – PowerPoint presentations can be used for webinars, so they have dual purpose and use – Break down into chapters just using pdf and can also add PowerPoints used for webinars – Ron to start breaking down the chapters in pdf – contact Henri for process if need help***
      3. ***ESA Participation – Right now focusing on own website and training material and including existing publications***
5. ***Standards & Regulations***
   1. ***Spreadsheet updates – Ron to head up – Division Chair responsibility to update – use notes to check for updates***
   2. ***API 622 – 640 - 641- 602 - 623 – 621 - 608***
      1. ***622 – 1/8” cross section – 100 PPM no adjustments – 624 refers to 622 - 3rd edition – published Oct 2018 – Question as to whether API 602 which is normally 1/8” cross section require new testing Section? 4.3.2.2 extension cover ¼” and above***
      2. ***API 621 valve reconditioning 4th edition published Oct 2018***
      3. ***API 623 Steel Globe valves - extension till 2020 - 1st ballot 131 comments – finalizing 2d ballot document***
      4. ***API 624 testing of rising stem valves for fugitive emissions – First edition published Feb 2014 - Extension till Feb 2021 – TF meeting***

***When specified packing other than 622 for elevated temperatures such as mica based packing, end user may specify alternative packing not tested per 622***

***Discussion on testing at 750F as the next step. For 1000F would need helium***

***Discussion API 624 compliance is limited to test temperature – Other option: for temperatures beyond API 624 end user may specify packing or manufacturer to ensure that temperature is within the limit of API 624 -***

***Add packing stress same as what was used in 622 for what valves are covered under the qualification extension, in addition to same type of packing (Section 11.1) - Need performance requirement of latest edition of API 622 for extension of qualification (100 ppm no adjustment) –***

***Options of going to higher temperature – what would the next level after 500 F? would it be 700F? Possibility to heat up with nitrogen to temp, cool down and then introduce methane to test leakage. With this system could even go to 1000F***

* + 1. ***API 641 Type testing of quarter turn valves for fugitive emissions 1st edition out 10/2016***
    2. ***6FA Fire Test committee – Using API 607 (Valve test) for packing should be good 589 has not been reissued and is not recognized by API – Only 607 is current -*** ***API 607 Fire test for ¼ turn valves and valves equipped with nonmetallic seats – 6th edition published 9/2016***
    3. ***API 600 Gate valves 13th edition published 2015 - Added nickel alloy and other high alloy - Max clearance requirement between wedge/disk guides and body guides – Concern about valves capable of operating at 1000F but API 624 and 622 limited testing at 500F – (problem with PTFE)***
  1. ***ISO 15848 – no activity – TaLuft modified fall 2018 and point to 15848 (draft issued last June) – TaLuft certificate existing will still be valid but new testing will be to 15848 – that is only for valves and not packing – some extension for temperatures and pressure classes – discussion on different material – Keep monitoring expected release of new TaLuft sometime this year – At annual meeting some of the members are on the committees and can give updates. There is also a transition period before the new legislation applies***
  2. ***EN 16752 – no activity***
  3. ***Emission 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. ***IED (Industrial Emissions Directive) BATIS (Best Available Techniques Information System) and Brefs – SEALING DEVICES REDUCTION OF FUGITIVE EMISSIONS DOCUMENT – final draft prepared by David Mitchell – close to be publication. Waiting for illustrations in expansion Joints section – but everything ready to go – finalizing now***
     3. ***EPA Rule on Methane still in effect***
     4. ***States action monitoring***
        1. ***Pennsylvania (permit rule went into effect August 8), Colorado, Wyoming – Ohio EPA DAPC Rulemaking - New Oil & Gas Industry Rules - Requesting Stakeholder Input***
        2. ***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.***
     5. ***Canada rule –issued on May 9, 2018*** [***http://laws-lois.justice.gc.ca/PDF/SOR-2018-66.pdf***](http://laws-lois.justice.gc.ca/PDF/SOR-2018-66.pdf) ***- Focus on LDAR program starting page 28***
     6. ***Alberta proposed regulation*** [***http://www.aer.ca/documents/directives/Directive060\_Draft.pdf***](http://www.aer.ca/documents/directives/Directive060_Draft.pdf) ***- comments submitted on May 28, 2018 – Fugitive leaks exception at 10,000 ppmv, argued for 500 ppmv – No activity or response at this point***
  4. ***WTO EGA*** 
     1. ***Tariff trade wars – Problems on the horizon – confusion is dominant – Mexico and Canada trade treaties completed – No details yet - tariffs on steel and aluminum still in effect – FSA CEOs want this to be on Government Affairs agenda due to its damaging effects – FSA president to send letter to Wilbur Ross, United States Secretary of Commerce. Meeting between US and China coming up***
  5. ***Brexit***
     1. ***Stalemate – No deal currently – Origin marking issue - Depends on Parliamentary vote which is expected to be defeated***
  6. ***EU Drinking water standards – EDW very active – Issue with relying on the Construction Product Regulation which does not address pumps or seals – 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***
  7. ***Food contact Graphite – EC 1935/2004: Follow German regulation and declare compliance from ESA - Schunk Conducting migration test with also MAMAT involved – On-going activity for testing***
  8. ***EPA Clean Water – No action***
  9. ***PFOA Contamination***
     1. ***EPA label PFAS 'hazardous' (polyfluoroalkyl substances) at National Leadership Summit and effort to designate PFOA and PFOS as “hazardous substances”.***
     2. ***2020 regulation will list this as an SVHC with an acceptable threshold of 20ppb:*** [**http://www.sgs.com/en/news/2017/06/safeguards-09717-eu-regulates-pfoa-and-related-substances-under-reach**](http://www.sgs.com/en/news/2017/06/safeguards-09717-eu-regulates-pfoa-and-related-substances-under-reach)
     3. ***Lower quality packing may have high PFOA content***
     4. ***White paper on FSA and ESA packing not containing PFOA and PFOS, at least below a threshold following REACH regulations with limits of 25 ppb – question of what amount actually is in the “PFOA free” dispersions – amount in packing vs. dispersion – Would need data – Daikin may have information – Bring it up to Government affairs? Larry checked Production says PFOA free, but the question is quantification in ppb - Mandy to ask Carl***
  10. ***Other***

1. ***Publications***
   1. ***Sealing Sense Articles***
      1. ***Compression Packing Handbook release - Due December 1, 2018. Sent to editors***
      2. ***Interview with Pumps and Systems on state of the Industry for January – Sherwin Damdar of Garlock volunteered – Feedback?***
      3. ***622 Standard Update- (Thom Jessup) due 3/1/19 confirm?***
      4. ***Need topics and volunteers for 7/1/19 and 11/1/19 –***
      5. ***Fire Test Standards- Matt Wasielewski - End of Year once 6FA progresses?***
   2. ***Other***
      1. ***Pump Engineer***
      2. ***Chemical Engineering***
      3. ***BIC***
      4. ***Flow control***
      5. ***KCI Valve World***
2. ***Outreach Projects*** 
   1. ***Fluor/Canada – Not active***
   2. ***VMA – No update***
   3. ***A&M Pump Show – Abstract review – very full program next year***
   4. ***HI*** 
      1. ***Guide books recommendation – Mechanical Seal handbook update - Commercial Buildings, packing write-up – Slurry Webinar – Condition Monitoring for rotary pumps – Engineering Data Book – Variable Speed Drive Webinar – MS handbook update and revise packing power consumption***
      2. ***Co-location for the Fall of 2019 in Pittsburg PA***
   5. ***Valve World America 2019***
   6. ***Industrial Valve Summit 22/23 May 2019 in Bergamo – David invited to Advisory Board – Limited presentations new format – papers to be published – limited number presented in the plenary session –*** [***https://www.industrialvalvesummit.com/wp-content/uploads/2018/09/Call-For-Papers-4-sett-2018-1.pdf***](https://www.industrialvalvesummit.com/wp-content/uploads/2018/09/Call-For-Papers-4-sett-2018-1.pdf)
   7. ***API*** 
      1. ***API 682 Meeting at Refining meeting and regular conference calls started***
      2. ***Fall 18 Refining Meeting – Issue with higher temperature testing and safety with methane***
   8. ***Power Gen – no plan***
   9. ***Chinese Packing and Gasket Association – Keep channels open***
   10. ***Indian Sealing Association – Monitor***
   11. ***STLE –***
   12. ***BHRG David to monitor***
   13. ***FLMUG – MUGAUG – EPRI – Meeting second week of January report from Greg possibly***
   14. ***Valve World – CETIM Presentation – Hans report to the group***
   15. ***Pump Summit with Valve World cancelled***
3. ***New Business***
   1. ***Membership***
      1. ***Daikin – Ron to contact***
      2. ***Steve Boss of SGL indicated intention to rejoin at beginning of next year. Need to follow up***
4. ***Next Session***
   1. ***February 4, 2019, 9:00 AM EST***
5. ***Adjourn***

***hva 01/07/2019***