



COMPRESSION PACKING WORKING GROUP Go-to-Meeting Conference

February 4, 2019

Present:

Larry Sheffield - Inertech Ron Frisard - A.W. Chesterton

Antonio Morales - Empak Spirotallic Mexicana SA DE CV

Martin Coulthard – James Walker Hans Dekker – A.W. Chesterton

David Edwin Scott – ESA

Chris Boss - Garlock Sealing Technologies Mike Kupin – Garlock Sealing Technologies Linda Finnegan – New England Braiding Jim Drago - Garlock Sealing Technologies

Ralf Vogel – Burgmann Packing

Greg Raty - Slade

Henri Azibert - FSA (603) 475-4335 mike.kupin@garlock.com Linda@anti-keystone.com jim.drago@garlock.com

larrysheffield@inertech.com

Absent:

David Mitchell – ESA

María García Gorrichategui - Montero Fye S.A.

John Morton – John Crane

Patricia Pichardo – Spirotallic Mexicana SA DE CV

Mandy Wittenberg – W.L. Gore Greg Cole – A.W. Chesterton Jakub Marczyk – James Walker

Lee Gillette – WL Gore

Mark Neal – ESA

Thomas Jessup – EGC

Michael Hamoy – John Crane Lewis Geoffrey – Dupont

Francesca Torriani - General Packing

Rob Garlock – EGC

Laverne Fernandes - Garlock Sealing Technologies

Arthur Hernandez – Nippon Pillar Sylvia Pan – HP Materials Solution

Geoffrey Kret - Total

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- I. Approval of Agenda
- 11. Handbook
 - a. Release
 - i. Posted on FSA website
 - ii. ESA website has 3rd and 4th Edition but link for 4th is to test procedure Continue about the read online system as it is expensive and not used very much - David to look into the link

- iii. Sealing Sense Article announcing release will be appearing in the repruary edition which should be out this week
- iv. Standards spreadsheet is also on the website Ron turned into pdf for website posting Need to update Ron will be checking into it Mike Kupin part of API task force and can help updating update spreadsheet on SharePoint to then post as a pdf on the website

III. Joint FSA ESA Projects-

a. LCC Power consumption formula

- i. Double checking results and formulas cost of effluent high \$100 per 1000 gallons or 19.85 Euros/ m³ settled on \$60.00 per 1000 gallons— 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. to be redrawn in Flush Plans tab -
- ii. Meeting January 21, 2019 with Mark Savage, Ron Frisard, Ryan Neris and Henri to go over spreadsheet. Next meeting, February 11, 2019 Need to consider shaft size
- iii. Change of the LCC platform to get on the KnowledgeBase No Schedule yet but John Crane has committed support

b. Valve Packing Study

- i. CETIM prepared Spreadsheet Need to make it a bit more user friendly Ralf communicating with Hubert perhaps at the next general meeting in May
- ii. 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 from Valve World 2018 Hans listened to the presentation and not much new was there. Hans sent presentation and Henri distributed and posted on SharePoint

c. ESA - PD 002 (BS 4371)

- i. 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 –
- ii. Anything on PTFE quality would be most useful Some information received but still need more needed Associate members can bring details for PTFE on yarn and dispersions and also need test method ESA members Lanzing, W.L. Gore, Teadit, Fiberline, have info on PTFE Meeting this Wednesday with ESA members that are PTFE suppliers expecting progress at that meeting

d. K Factor study/ASTM WK 56884

 i. 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 - question of wet vs. dry anti-seize – Most information related to flanges and gaskets - Need more information for packing

IV. Education projects.

a. FSA Webinar(s)

- i. 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
- ii. Use new handbook to base webinars Idea to do a series now that the manual is released do a three- or four-part series goal middle of February, March and

April, and also record them – volunteers to be a co-nost – Greg Cole – Chris Boss – Ron to organize and focus for end of February

iii. Jim Drago submitted version of Safety article/training to PVP as a Technical Presentation, (not a paper) – Not accepted yet and specifically noted this is not entirely original material – waiting for decision – Ron to share info on valve bolting failure

b. ESA Packing training material

- i. ESA working on the animations and voice over
- ii. Delivery/platform method on new website with new software tools conversion in process –First two sections are done and scheduled to be live 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 plan to send link to 2 or three members to check out and then after comments are received, put it live on the website Need additional pictures: Expansion joint photo badly needed by David

c. KnowledgeBase

- i. Sealing Sense Articles Repository Active. Linda volunteered to be responsible for Packing articles.
- ii. 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
- iii. Current plan is to break down the handbook material into chapters just using pdf and can also add PowerPoints used in webinars Ron to start breaking down the chapters in pdf in progress and Linda can review
- iv. ESA Participation Right now focusing on own website and training material and including existing publications

V. Standards & Regulations

- Spreadsheet updates Ron to head up Division Chair responsibility to update use notes to check for updates – Mike Kupin to update spreadsheet in SharePOint for API standards
- b. API 622 640 641 602 623 621 608
 - i. 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 requires new testing Section 4.3.2.2 extension cover 1/4" and above
 - ii. API 621 valve reconditioning 4th edition published Oct 2018
 - iii. API 623 Steel Globe valves extension till 2020 1st ballot 131 comments finalizing 2d ballot document
 - iv. API 624 testing of rising stem valves for fugitive emissions First edition published Feb 2014 Extension till Feb 2021 TF meeting
 - 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)
 - When specifying packing other than 622 for elevated temperatures (such as mica based packing), end user may specify alternative packing not tested per 622
 - Discussion about API 624 compliance limited to test temperature testing at 750F as the next step. For 1000F would need helium Other

- option: for temperatures beyond API 022 end user may specify packing or manufacturer to ensure that temperature is within the limit of API 624
- Options for 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
- v. API 641 Type testing of quarter turn valves for fugitive emissions 1st edition out 10/2016
- vi. 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
- vii. 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 also about valves capable of operating at 1000F but API 624 and 622 limited testing at 500F (problem with PTFE)
- c. 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
- d. EN 16752 no activity
- e. Emission Regulation
 - i. 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
 - ii. EPA Rule on Methane still in effect
 - iii. 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.
 - iv. 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 -
 - v. 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

f. Trade

- i. Environmental Goods no progress
- ii. 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
- iii. 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 granted for Senator Kon Johnson action on reversing tariffs Need example of how it hurts business use template Hope sent Government Affairs committee initiative documents to members
- iv. Brexit Stalemate No deal currently Parliamentary vote was defeated possibility to go for Authorised Economic Operator (AEO) trusted trader status keep monitoring
- i. 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
- g. 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
- h. EPA Clean Water No action
- i. PFOA Contamination
 - i. EPA label PFAS 'hazardous' (polyfluoroalkyl substances) at National Leadership Summit and effort to designate PFOA and PFOS as "hazardous substances".
 - ii. 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
 - iii. Lower quality packing may have high PFOA content
 - iv. 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 Larry checked Production says PFOA free, but the question is quantification in ppb Mandy to check with Carl Larry to hear from one supplier keep on checking for maximum levels

VI. Publications

- a. Sealing Sense Articles
 - i. 622 Standard Update- (Thom Jessup) due 3/1/19 in process
 - ii. Need topics and volunteers for 7/1/19 and 11/1/19 Possibility Valve packing study Other? Flushing arrangements, in, in and out, flow rates need volunteers
 - iii. Fire Test Standards- Matt Wasielewski End of Year once 6FA progresses?
- b. Other
 - i. Pump Engineer
 - ii. Chemical Engineering

- III. BIC
- iv. Flow control
- v. KCI Valve World

VII. Outreach Projects

- a. Fluor/Canada Not active
- b. VMA Valve Industry Knowledge Forum, April 9-11, 2019
- c. A&M Pump Show Abstract review very full program next year
- d. HI
- i. Guide books recommendation 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 in LCC section
- ii. Co-location for the Fall of 2019 in Pittsburg PA
- e. Valve World America 2019 Ron reached out for training opportunities
- f. 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 ESA Elastomer Division submitted an abstract and it was accepted not a lot of abstracts
- g. API
 - i. API 682 regular conference calls
 - ii. Spring Refining Meeting May 06, May 09, 2019, Grand Hyatt San Antonio, San Antonio, Texas Issue with higher temperature testing and safety with methane
- h. Power Gen no plan
- i. Chinese Packing and Gasket Association Keep channels open
- j. Indian Sealing Association Monitor
- k. STLE-
- I. BHRG David to monitor
- m. FLMUG MUGAUG EPRI Meeting second week of January feedback FLMUG valve packing installation as a problem foregoing consolidation of packing Ron has presentation that he will send to Henri for Distribution
- n. Valve World CETIM Presentation distributed and posted

VIII. New Business

- a. Membership
 - i. Daikin Ron to contact
 - ii. Steve Boss of SGL indicated intention to rejoin at beginning of year. Need to follow up High temp valve testing is of interest Should extend invitation to meeting in the fall or even better in the Spring technical meeting
- b. Packing Vice Chair needed Contact Ron if interested Ron will not be able to attend the April technical meeting, so he would need someone to step up
- IX. Next Session
 - a. February 18, 2019 9:00 AM EST
- X. Adjourn