



**INSTITUTE OF
CORROSION**



energy
institute

Aberdeen Highlands & Islands

Welcome to the ICorr / EI
Annual Joint Event
2021.



**INSTITUTE OF
CORROSION**



Institute of Corrosion and EI
partnering with:

Rebecca Allison (OGTC),

- Jim McNab (Oceaneering), Yvonne Onuegbu (EI AHI), Hamed Habibi (Speir), Dave Twedde (Speir).
- 21st January 2021





“CUI – Why are we still Talking About This ?”

Rebecca Allison (OGTC),
Jim McNab (Oceanering), Yvonne Onuegbu (EI AHI),
Hamed Habibi (Speir), Dave Twedde (Speir).

21st January 2021

Q&A

- Selection of Questions to: Rebecca Allison (OGTC),
- Jim McNab (Oceaneering), Yvonne Onuegbu (EI AHI), Hamed Habibi (Speir), Dave Tweddle (Speir).

Post-Presentation 26/01/2021

Questions and Answers – MCF / ICorr Joint Event Aberdeen – Jan.2021

- Q1. How will existing stress concentrations such as welds affect FSCT (Focused Stress Concentration Tomography)?
- A1. Just be recorded as local stress, and will be of a difficult magnitude to weld indication.

Questions and Answers – MCF / ICorr Joint Event Aberdeen – Jan.2021

- Q2. FSCT How accurate is it ?
- A2. Not precise but geographic region defined. SCT in its original form looked at whole pipe. FSCT is so close, so things emphasised, sometimes to our disadvantage.

Questions and Answers – MCF / ICorr Joint Event Aberdeen – Jan.2021

- Q3. When do you see it being rolled out ?
- A3. Needs more refinement. Need to train machine as to seriousness of Signals. A Test programme is in hand to follow insulation removal, monitoring. Tool does work already but needs DB development and Tool limitations defining. E.g. WT limitations.

Questions and Answers – MCF / ICorr Joint Event Aberdeen – Jan.2021

- Q4. OGTC, with shift in strategy to Net Zero. How will that will impact CUI Programmes?
- A4. Fugitive Emissions Reduction does still fit into Roadmap. Will still be active within OGTC going forwards.

Questions and Answers – MCF / ICorr Joint Event Aberdeen – Jan.2021

- Q5. Coatings / AeroGels as mitigations, has OGTC tackled this so far ?
- A5. Not as yet but still open to suggestions. In principle Aerogels have potential. Insulation in Norway _ Aerogels are commonly used there.

Questions and Answers – MCF / ICorr Joint Event Aberdeen – Jan.2021

- Q6. What is the next major leap in Technology ?
- A6. Systems that monitor coating condition under insulation would be ideal.

Questions and Answers – MCF / ICorr Joint Event Aberdeen – Jan.2021

- Q7. Can we consider Intelligent pigging for monitoring CUI?
- A7. Breaking containment is the biggest challenge for this. Also many lines are 'unpiggable' anyway and narrow bends. ILI needs a sig. amount of metal loss normally to detect/log it.

Questions and Answers – MCF / ICorr Joint Event Aberdeen – Jan.2021

- Q8. Will FSCT work on CRA's?
- A8. Normally need magnetic materials/pipes but may be OK on Ext. Cladding's.

Questions and Answers – MCF / ICorr Joint Event Aberdeen – Jan.2021

- Q9. Do think you could find cracking?
- A9. Probably, if magnetic to some degree but CUI is the priority for detection for us.

Questions and Answers – MCF / ICorr Joint Event Aberdeen – Jan.2021

- Q10. PFP Cementitious, corrosion under that, can FSCT detect it?
- A10. Sometimes reinforcement (like chicken wire), so that may interfere with it.

Questions and Answers – MCF / ICorr Joint Event Aberdeen – Jan.2021

- Q11. Heat Tracing (Copper) is this a problem?
- A11. Further Testing is required but should not be a major issue as Copper is not magnetic, so should not interfere with magnetic material below.

Questions and Answers – MCF / ICorr Joint Event Aberdeen – Jan.2021

- Q12. What about the use of RBI for CUI Inspection, is this appropriate ?
- A12. Yes it is, High risk items will get inspected more often but use with care, as NDT Methods not fully reliable. FSCT is screening tool not a planning tool. RBI would be much more useful with greater Data sharing in Industry across Operators, part of reason that the CUI Network has been brought back.

Questions and Answers – MCF / ICorr Joint Event Aberdeen – Jan.2021

- Q13. Most CUI materials fail after 10-15 yr's, are there any new products on market?
- A13. OGTC has not seen much evidence of this, yes it is a gap in the whole CUI space. CUI still falls through discipline gaps.

Questions and Answers – MCF / ICorr Joint Event Aberdeen – Jan.2021

- Q14. Are there any Temperature limitations to the CUI Tool, how does Temp influence tool?
- A14. In typical O&G CUI Ranges this should not be a problem.

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- Q15. What about the combination of Old and New Insulation materials on many Assets?
- A15. Magnetic or Not Magnetic is the key criteria for FSCT. Further data collection will refine over time. Time since last Insulation removal is also a key input in Analysis.

Questions and Answers – MCF / ICorr Joint Event Aberdeen – Jan.2021

- Q16. Challenge of Data and Predictive Tools for CUI, how is OGTC promoting this ?
- A16. These are gaps in the CUI market that OGTC are looking to fill with suitable projects.

Questions and Answers – MCF / ICorr Joint Event Aberdeen – Jan.2021

- Q17. What is the best NDT Technique ?
- A17. Horsing for courses and knowing each Techniques limitations is the key. FSCT maybe the nearest thing to a Silver Bullet. But it comes down to having a competent Operator. X Rays are always liked because of their definite images instead of a lot of wavy lines that are more difficult to interpret.

THANK YOU FOR ATTENDING

- This Webinar was brought to you by EI working in partnership with ICorr and Rebecca Allison (OGTC),
- Jim McNab (Oceaneering), Yvonne Onuegbu (EI AHI), Hamed Habibi (Speir), Dave Twedde (Speir).

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