

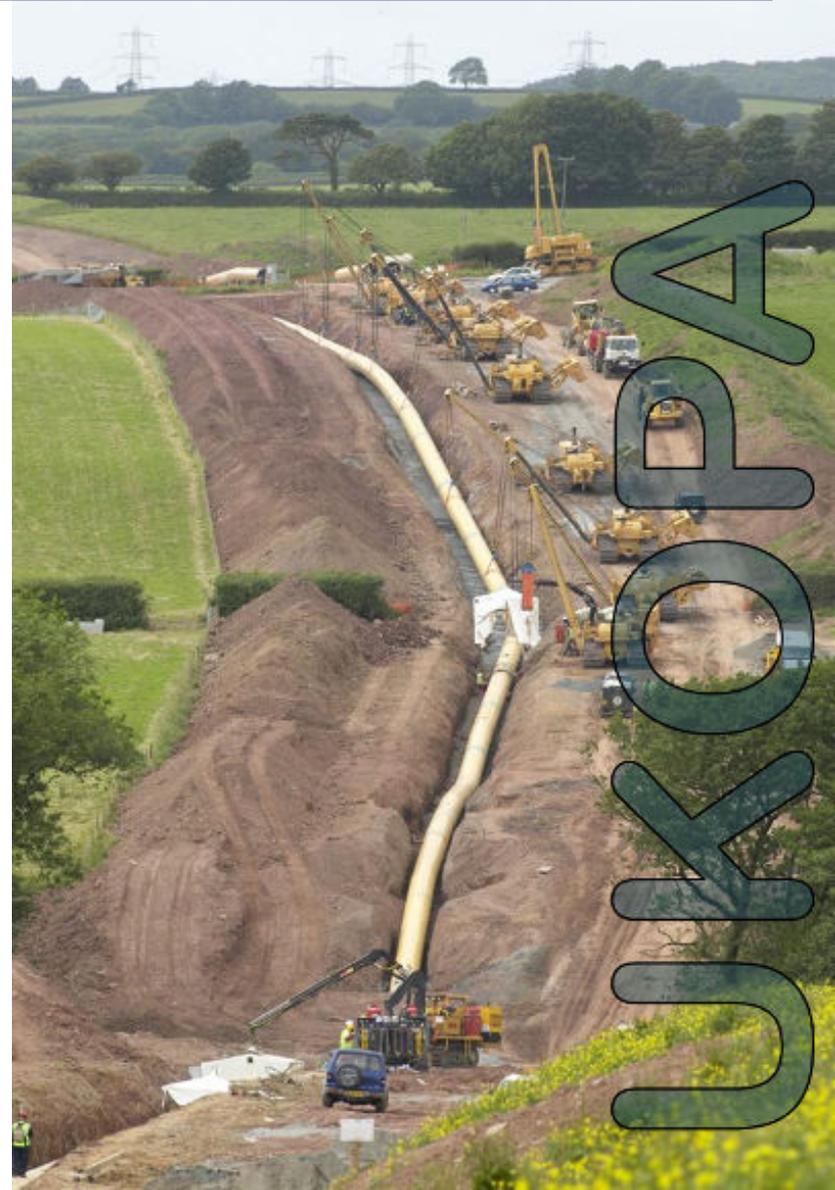
UKOPA

United Kingdom Onshore Pipeline Operators' Association

UKOPA Members Meeting February 2020

PIWG Update

Tim Rudd, PIWG Chairman



Overview

- Documents sent for approval
 - GPG 18 Pipeline remaining life
 - GPG 30 Management of pipework vibration
 - GPG 32 Seismic Assessment (in support of GPG 19)
- Key work areas 2020:
 - DC Corrosion
 - Decommissioning / Abandonment of pipelines
 - Epoxy Sleeve Repairs
 - Non-Piggable Pipelines – Failure rate study
 - TD1 –Affirmation of MOP
 - Sleeves
 - Temporary Repairs
 - Weld Quality

DC Corrosion

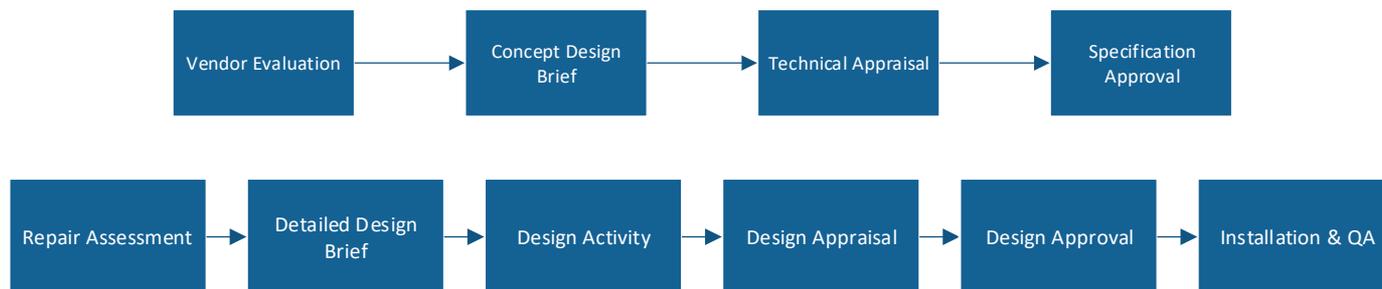
- **Development of DC corrosion document underway**
 - Similar remit, holistic assessment of guidance and standards available on DC corrosion
 - Acts as a 'signposting document' highlighting relevant legislation, standards etc.
 - Includes summary tables, recommended actions etc.
 - PIWG have final draft, and following any comments and updates expect final document in Q2.
 - Governance process and publication will follow
- **Detailed, comprehensive guidance**
 - Please advise if you would like to be involved in review process
- **Key facts to consider**
 - Power Lines (AC corrosion)
 - Rail crossings (can be DC)
 - Variation in loading/balance between power cables – just because OK at time of testing doesn't mean always OK!

Decommissioning or Abandoning Pipelines

- Potential project under evaluation for 2020
- Scope is to produce a TBN on Decommissioning or Abandoning Pipelines
 - NOT prescriptive – UKOPA cannot highlight any as ‘Best Practise’
- Intent of document is to highlight issues that need considering when evaluating end-of-life treatment of pipelines
 - Legal framework
 - Easement issues
 - Long-term integrity of pipeline and land
 - Potential abandonment or decommissioning options available
 - Notifications/engagement with stakeholders
 - Interactions with other utilities etc.
- PIWG have a volunteer to work with PIE to produce a straw man
 - Would very much like to have others involved in the process – please let us know

Epoxy Sleeve Repair

- UKOPA have identified that the management of these techniques requires specific guidance for their design and use, as existing industry recommendations for design of Type A sleeves does not cover the extended hybrid repair scope.
- The approach is to define a process where the company (operator) and the repair vendor develop a common technical understanding in a specification that can provide a repair vendor and competent company engineer with sufficient information to design and approve a repair scenario.
- A two-stage approach has been developed covering qualification of a repair method during a concept stage, then the detailed design performed for each specific application.
- Draft documents submitted and project extended to trial use on a members asset, prior to finalisation and publication.
- In the meantime, draft documents will be available in the members centre.

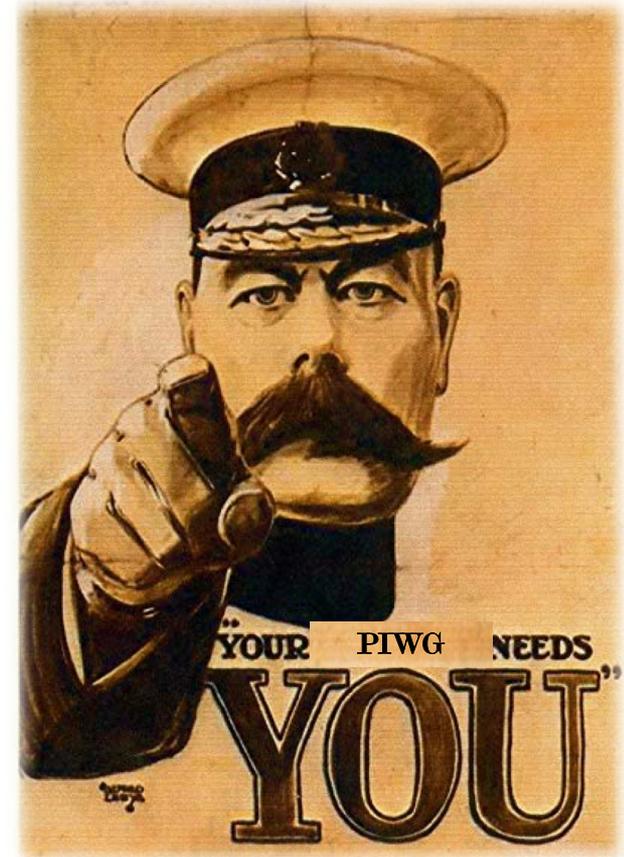


Non-Piggable Pipelines - Failure Rate Study

- Work has started on the project, PIWG managed project, supported by PIE
- Anticipate completion of study and draft of TBN in 2020 (if members support with request for information)
- Project proposed to support the justification for changing the TD/1 and PD 8010 requirements for MOP/MAOP affirmation
 - Intent is to avoid requirement to briefly raise MAOP to within 7 bar of declared MAOP
 - Current practise is felt to have little practical benefit in enhancing integrity.
- The study required is an investigation of the incidence of unreported external interference recorded in the UKOPA data base, and a study on the effect this has on the pipeline probability of failure.
 - Failure rates – piggable vs unpiggable
 - Tolerable risk – how long can an unpiggable pipeline be and still have a tolerable risk of failure?
- Will feed into revision of IGEM TD/1 Ed 6
 - Study intended to provide additional justification on failure rates, enabling the team to justify removing the “raise to within 7 bar of the declared MOP” requirement currently present.

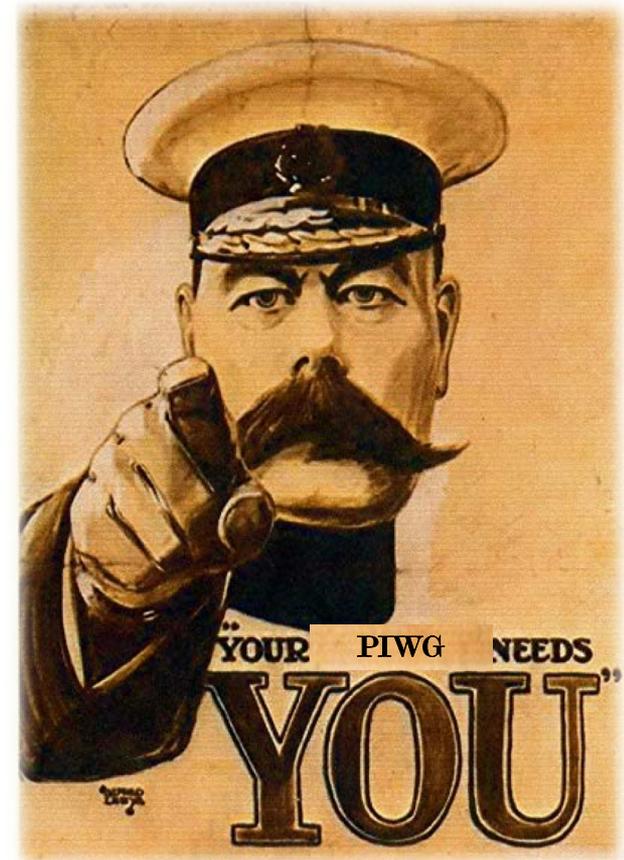
Pipeline Sleeves

- Ongoing study into effect of sleeves on corrosion behaviour of defects beneath them
 - Is there a higher incidence of defects?
 - Do they behave differently?
 - Does it affect pipeline adjacent to sleeves?
- Preliminary work done by PIE
 - Tool developed to import ILI data and extract sleeve information
 - # of sleeves per line, length, frequency of defects inside/outside etc.
- Currently awaiting response to simple questionnaire sent out in Sept 2019
 - Please let us know if you are willing to provide ILI reports (anonymised) to PIWG for inclusion in study
 - Sleeve tool can extract data automatically so is not onerous
- Without higher operator take-up we cannot extract meaningful data from it
- Pending Operator buy-in data extraction can be completed by Q1 2020 with report and TBN completed during remainder of 2020.



Pipeline Sleeves

- Other Sleeve issues
 - Discussion regarding sleeve fills and whether there are any standards/specifications for these and if not should UKOPA consider developing one
 - There is other work being done (and previously done by UKOPA) in this area, so initial task is to bring together a summary of these and then decide how to proceed.



Temporary Repairs

- PIWG looking to develop guidance document for use and applicability of temporary repairs
- Study circulated to evaluate types of repairs in use, assessment procedure used, lifetime expectation etc.
- A summary report has been produced based on data submitted by some members – thank you.
- Work is now ongoing to produce a scope for the guidance document and it is hoped to have the initial draft by the last meeting of the year
- Potential synergies with other industry guidance
 - EEMUA have active Working Group on temporary repairs
- Any personnel interested in assisting in this study please contact Tim Rudd or Richard Price.

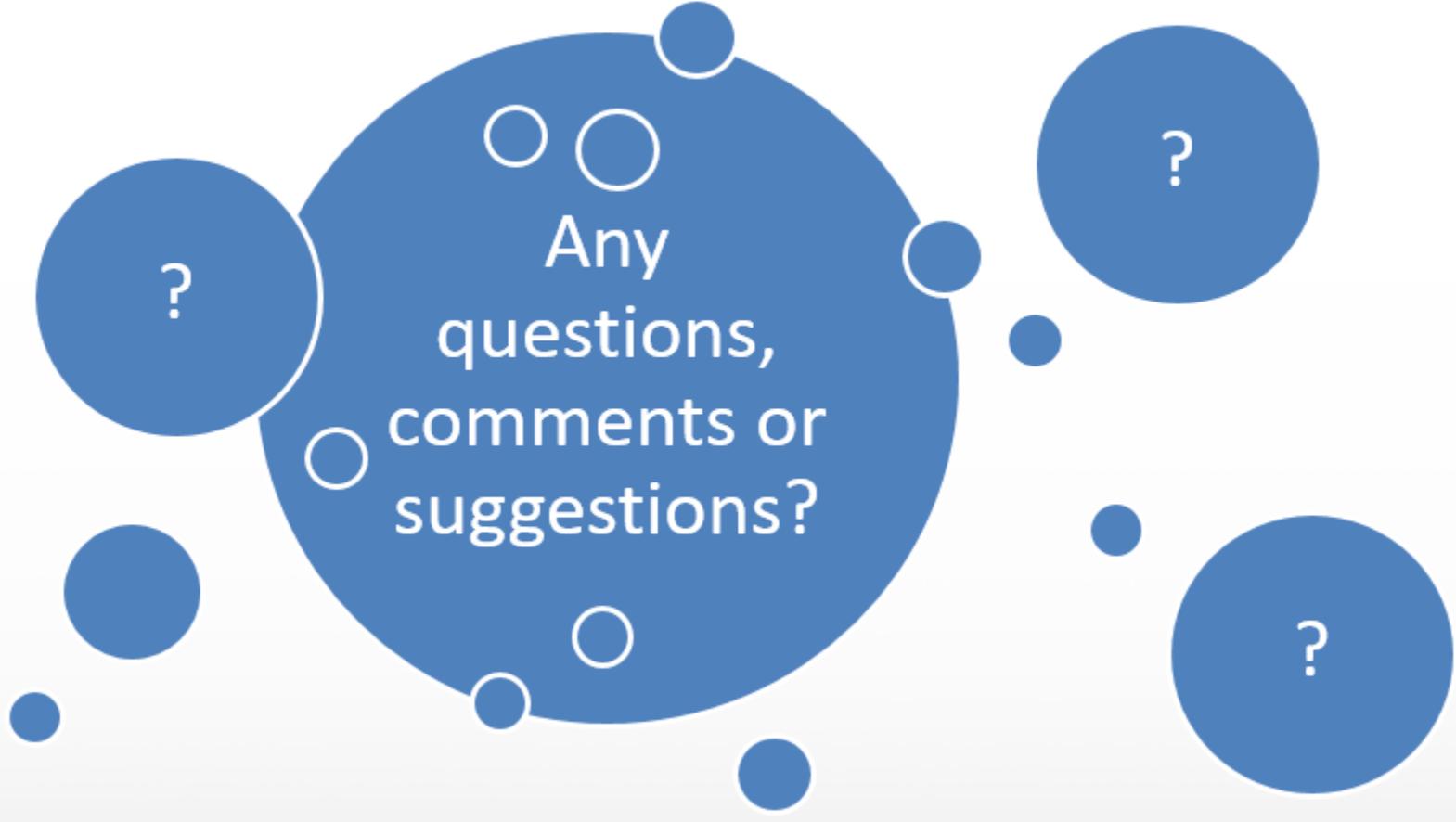
Weld Quality

- Phase 1 of project completed in 2019
 - Project report to be updated by Q1 2020 and communicated to UKOPA members
- PIWG are presenting this work in conjunction with ATCO
 - PPIM February 2020, Houston – UKOPA (Tim Rudd and Kirsty McDermott) presented
 - PRCI March 2020, Calgary – ATCO (Kalen Jensen) to present
- Phase 2 works planned for 2020
 - Expansion of dataset using additional samples from oil and liquid operators
 - HS2 diversions provides potential for more cut-outs (pre-1972 girth welds)
 - PMC at Ambergate set up to receive samples. The specification for sample requirements are to be reissued to enable members to send in samples for storage prior to being used in further research.
- Potential for additional collaboration with Swansea university
 - Further studies of fatigue performance proposed

Key Points for Members

- Pipeline Sleeve data still required – please confirm if you are willing to be involved, if you have not already done so
- Weld Quality – please keep cut-outs of any girth welds (particularly those containing defects) for pre-1972 pipelines
 - Ideal sample length is at least 300mm either side of the weld
 - Samples can be stored at PMC Ambergate
 - If no known defects, a single sample per cut-out segment is all that is required
- **Epoxy Repair Guidance**
 - Trialling process and development of specification via Essar.
 - Aim to have final suite of documents published by end of 2020
 - Decision as to standing of these documents needs discussion with Governance Group and Board.
- **Volunteers**
 - Any of the work being carried out by the group is of interest to you, please volunteer to get involved

Any Questions?



Any
questions,
comments or
suggestions?