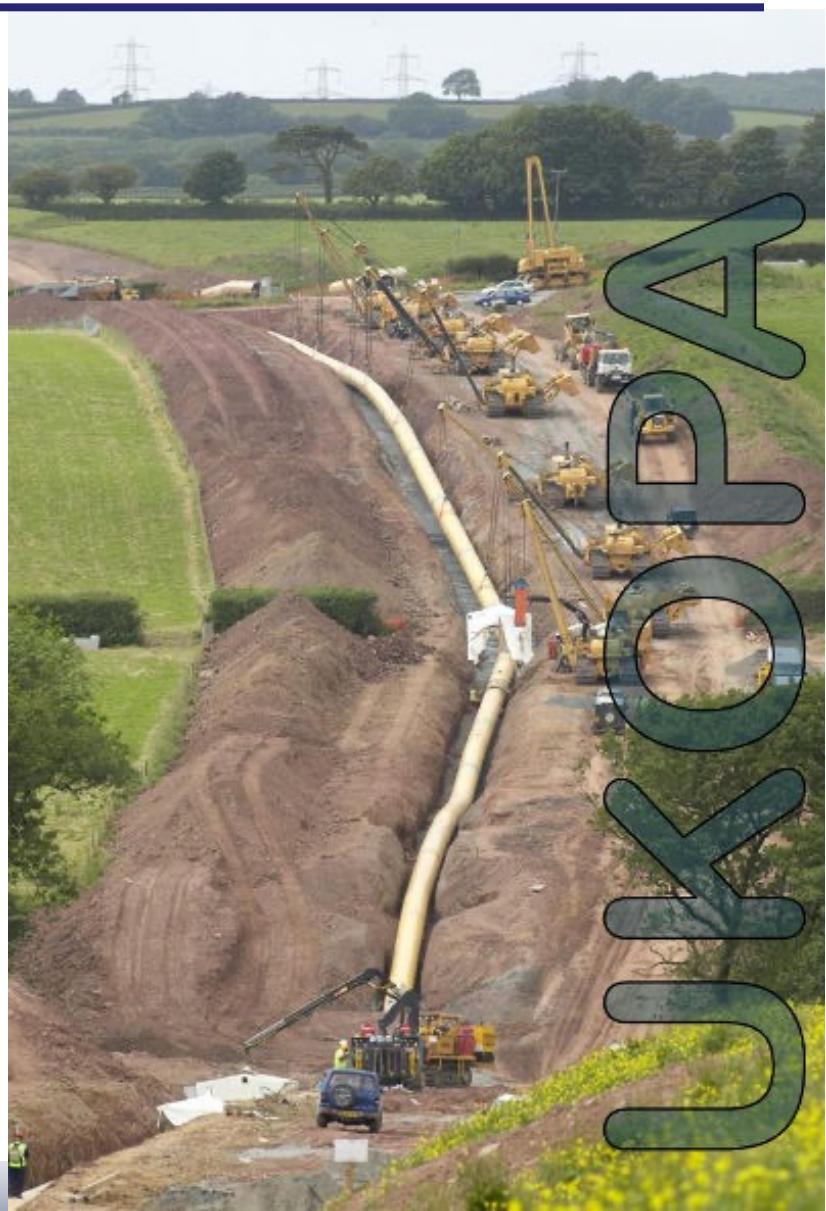
UKOPA
United Kingdom Onshore Pipeline Operators' Association

PIWG Feb-Mar 2023 Members' Meeting Update

Richard Price and Stephen Humphrey on behalf of Tim Rudd



2022 Review vs. Plan

- Budgets
  - 20% underspent vs. plan, primarily due to delays in weld quality project (no student recruited in 2022), along with no spend on ESR project.
  - Sleeve project and Tech Support over budget, due to focus on completing outstanding 2021 GPG/TBN updates and expansion of the statistical analysis requested in the Sleeve project.
- Key projects
  - Weld quality Project
    - Delivered presentation on Weld Quality at COPEX 2022 in Brussels – well received.
    - Finalised plan for two project streams and met with Swansea to discuss student options
    - Funding stream used for last projects is no longer available, working with Swansea for Expression of Intent to enable them to bid for new funding stream – potentially for Q3/Q4 2023 recruitment
    - PIE working to compile/standardise the various Weld Quality documents into 'UKOPA standard' publications, with a view as publishing as a series of TBN's.
  - Sleeve Project
    - Completed initial and secondary analysis on ILI data received from operators
    - Further statistical analysis requested from PII, to allow more quantification of differential corrosion rates inside/outside sleeves, and to break down further by age of coating and coating type.
    - PII working on final analysis, to be completed and presented to PIWG by May meeting
    - Once this research is completed PIWG will focus on completing GPG 005 review and update (Management of Pipeline Sleeves)

2022 Review vs. Plan

- Key projects
  - ESR Project
    - Still on hold, has lost momentum since John Ferrari/Essar left
    - Reluctance from 3rd party vendors to work with ROSEN on this as they see no commercial incentive
    - Produtive meeting with Will Sharman (Rosen) in Q4 2021 developed suggested way forward- PIWG to act as 'client' for an ESR design, to enable flowchart to be tested. Small cost, but means PMC would not have to do engineering work at their cost.
    - Also request examples of previously specified ESR's and supporting document packs from UKOPA members, ROSEN can then run these through the process to develop 'worked examples' for use as reference tools by members.
    - Final way to extract additional value – ROSEN suggested pivoting this to use as a tool for specifying/comparing Wet lay-up of composites. Would there be more appetite for this from the group?

2022-2023 GPG/TBN reviews

- GPG 001 Management of reduced depth of cover
  - Substantially complete, with PIE for final review – aim to complete this month, published Q2.
- GPG 004 Management of pipeline dents
  - Published in 2022
- GPG 005 Management of pipeline sleeves
  - Update of this document is on hold; targeted for Q2 2023 once sleeve/casing work completed
- GPG 006 Impact protection slabs
  - Substantially complete, with PIE for final review – aim to complete this month, published Q2.
- GPG 009 - Near neutral pH and high pH stress corrosion cracking
  - Published in 2022
- GPG 034 Life of Temporary repairs
  - Published 2022
- GPG 033 – ESR Management
  - Update of this document is on hold; targeted for Q3 2023 once further experiences with ESR framework
- GPG 038 Pipeline decommissioning and abandonment
  - Document substantially complete, working with external expert (R. Espiner) to perform 3rd party review before publishing. Target publishing in Q2.
  - Secondary TBN has been completed, to contain historical cost examples for reference.
- New TBN's on Weld Quality project
  - To be published in 2023, after legacy reports are reviewed and converted to UKOPA style.

Other areas of work

- Review of faults on non-piggable pipelines
  - A simple model has been produced to estimate the number of ‘missed faults’ on non-piggable pipelines.
  - Further development of model needed to fully develop probability of failure models for piggable vs non-piggable - anticipate completion of initial work in Q2 2023.
- Pig Trap inspection
  - Subgroup working to discuss standards/policies and potential to develop a WSE template
- Composite repair database
  - Considering a central database to build up info on life of composite repairs
- H_2 database
  - Amend existing UKOPA Database to capture lines in hydrogen service, to develop fault and failure data.
  - **Should this sit with another Working Group rather than PIWG?**

Other areas of work

- Drop Weight Tear Testing
  - A scope is currently being developed for a project with EPRG, Kirsty is looking to share to see if it might be of interest to UKOPA for a joint project
- River Crossings
  - Discussions around issues with river scour/erosion exposing pipelines. A number of PIWG members have done work on this, or have experienced issues.
  - Significant appetite to develop industry guidance on how to inspect and monitor larger crossings, along with a potential signposting document highlighting potential repair options and applicable legislation etc.
  - Should this sit as a joint project with another Working Group?

New focus areas, arising from 2022 Members meeting output

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- Sleeves
  - Expansion of current project
  - Degredation of grouting on existing sleeves
  - **How to determine life of a sleeve?**
- Temporary repairs (composites)
  - How to support use in gas networks, **life of repairs,** life of resin in repair shells, welded repairs
- Loading Assessment
  - **Tool to calculate whether slabbing needed, protection levels etc.** Potentially guidance on ground loading, boreholes, washout etc.
- Piling/Vibration calculations
  - Guidance on different piling/drilling methods, safe distances, vibration limits, how to calculate PPV, best practise in monitoring
- Ground Movement
  - **How to assess and monitor movement of ground around pipelines (for example slippage, subsidence etc.)**
- H2 Defects
  - Weld quality – are allowable defects in H2 service different to current service?
- Piping vibration
  - Smallbore piping in AGI's – how to manage vibration
- Inspection guidance
  - How to assess a defect, what qualifications to use, process to follow etc.