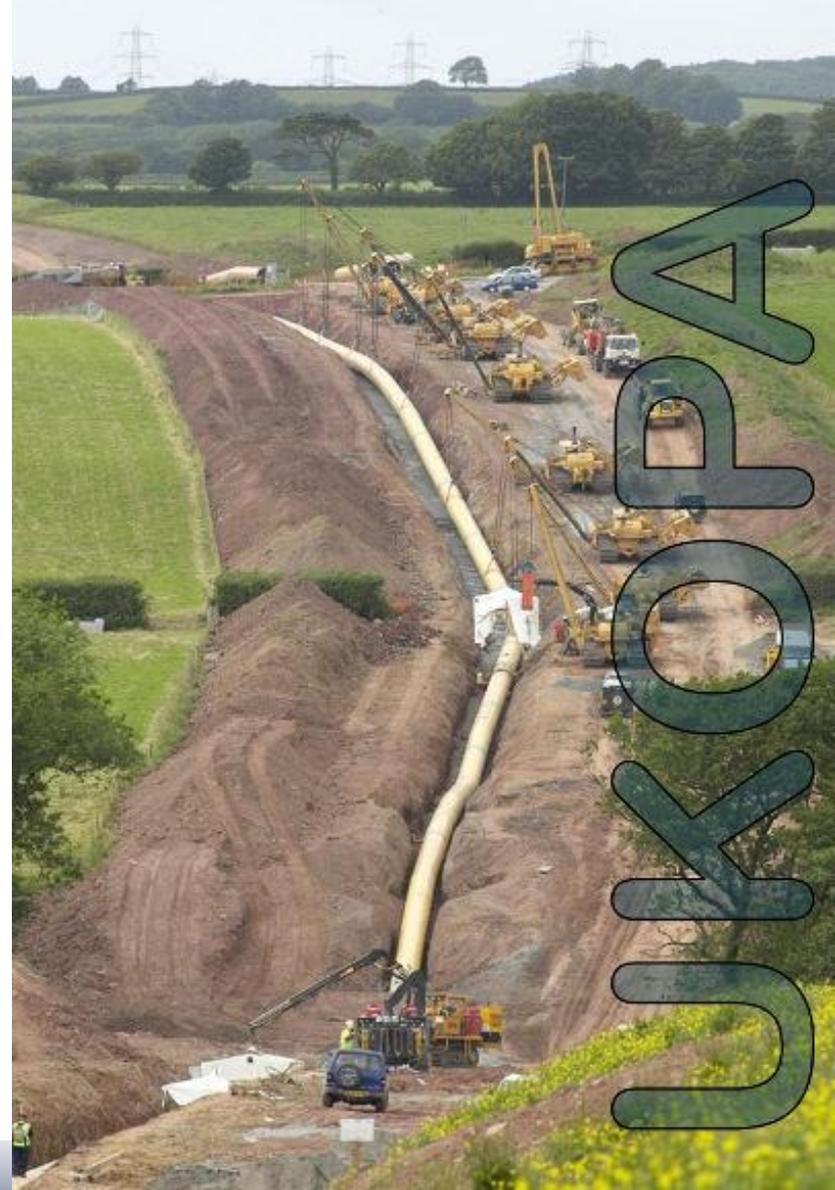


PSWG Update (inc. Learning Brief sharing)

Martin Cook (WWU)
PSWG Chair





There have been 3 meetings to date in 2024

- 14th February via TEAMS
- 30th April at NG Warwick
- 3rd October at BPA Kingsbury



Focus areas include

- PSAT (Inc. GPG 003)
- Learning Briefs
- 2024 Plan Development



We have 15 Members (including Board rep) from 12 members companies



Process Safety Forum

- PSWG represent UKOPA on the PSF
- Process safety sharing's from industry representatives
- On-line and F2F meetings

PSWG 2024 Work Plan



Process Safety Leadership (Culture) and Competence – Create a New Guide



Review GPG003 'Pipeline Process Safety Performance Monitoring' and KPI considerations



Issue PSAT Questionnaire, analyse (trend) results, present findings



Carry out review of PSAT questions



Continue to compile, issue and share Learning Briefs

PSAT – Process Safety Assessment Tool

Compile Results and Issue

- 27 members submitted data (c.f. 20 in 2020)
- The data has been processed and the output reports issued to members

Analyse (trend) results

- A comprehensive report has been prepared and was reviewed at the October PSWG meeting
- The report will be issued to the relevant Working Groups

Sharing of Trends

- Sharing options – issue as a report, present findings (Zoom or at a meeting) or via a workshop
- Which do members prefer?

Review of Questions

- Ambiguous questions have been re-written
- The February 2025 PSWG meeting will focus on reviewing the ten PSAT section questions. Each PSWG member will facilitate one section
- A new (11th) section covering security (physical / cyber) is proposed

PSAT Improvements

- Kiran Dutton of NG has made significant improvements to the excel workbooks. This will considerably reduce completion and processing time
- He has also prepared a 'Statement of Process' detailing how to process the data

Learning Briefs

Overview

- A key focus area for PSWG
- A mechanism for sharing learnings (both positive and negative) from other pipeline operators both from within and external to UKOPA
- Anonymous if required

Process & Governance

- An external facilitator receives the information from UKOPA members and prepares a draft for review
- Following approval by the member, the Learning Brief is reviewed by PSWG, approved and added to the UKOPA website (Members Area unless requested otherwise)

Sharing

- Selected Learning Briefs are presented at Members Meetings
- Available on UKOPA Website

Status

- In 2023, 15 Learning Briefs were prepared (September onwards)
- 2024 – 8 issued, 4 drafted (reviewed at the October PSWG Meeting)

Search Facility

- To enable simplified online searching each Learning Brief will be allocated a primary category and several sub-categories.
- These search categories were reviewed and agreed at the October PSWG Meeting
- The primary category aligns with the ten PSAT sections

Process Safety Work Areas

PSWG Members considered key process safety topics affecting their respective organisations and the wider industry.

Process Safety Leadership (Culture) and Competence

- A meeting is being organised with Cogent to explore currently available resources in this subject area.
- Member templates covering the HSE 8 Principles of Process Safety Leadership are being reviewed as a possible structure for this guidance note

GPG003 -Process Safety KPI

- GPG003 – this has been reviewed at PSWG Meetings and the consensus is that the PSAT questions should be reviewed first
- GPG003 will then be re-written to align with PSAT

Questions?





What happened?

- An emergency response exercise was set up to test the response to a reported hydro-carbon leak into a water-course
- The exercise was carried out successfully and found to be very worthwhile

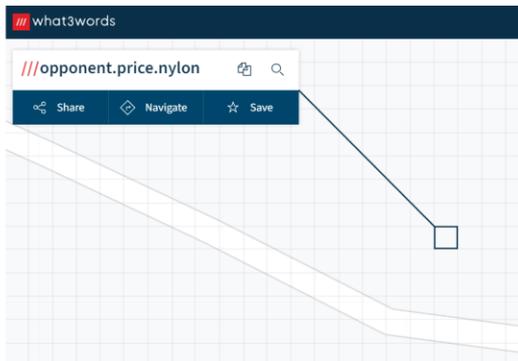
Findings and key learning points

- A simulated call was made to the Emergency Control Centre from a 'farmer' reporting a suspected liquid hydro-carbon 'leak'
- The response team was mobilised and attended site
- The location of the 'leak' and run-off into a stream was identified and accessed
- A spill containment boom was set-up across the stream
- The team informed various simulated 'authorities' and responded to 'queries'
- The exercise provided excellent training for staff
- Specific learnings related to maps, familiarisation with access routes and providing permanent fixing points for the containment boom

Recommendation

- It is recommended that operators carry out exercises as a means of training staff and to identify learnings
- Liquid pipeline operators should review their spill containment equipment inventory





What happened?

- An emergency response exercise was set up to test the response to a lone worker not responding to a colleague's phone call
- The exercise was carried out successfully and found to be very worthwhile

Findings and key learning points

- The lone worker made an initial phone call to their base to give their location
- The procedure for lone working is that the lone worker then makes regular calls to a buddy to confirm there are no issues. This is referred to as a 'check' call.
- A pre-arranged 'check' call was not received by their buddy when expected
- The buddy tried to contact the lone worker several times using different mobile phones
- The buddy mobilised another worker and they proceeded to the last known location of the lone worker
- The lone worker was found safely carrying out work. They had lost track of time and hadn't heard their phone
- The use of 'what3words' to specify the location removed any ambiguity
- The main learning was to consider why the 'check' call was not responded to

Recommendation

- It is recommended that operators carry out lone-worker exercises to identify learnings
- Consider using 'what3words' in addition to other methods to identify a location simply and without ambiguity



What happened?

- During a routine line-walk, a section of riverbank was found to have been eroded exposing a section of underground pipeline
- Remediation works were carried out with full consultation from local agencies

Findings and key learning points

- Following discovery, planning immediately commenced to remediate the issue
- Involved parties were the Local Authorities, the Environment Agency, local waterways representatives, specialist diving contractors and expert pipeline repair specialists
- The riverbank had to be rebuilt using environmentally approved materials
- The pipeline was inspected and re-supported from underneath before any backfill took place
- Remediation works were successfully completed
- The project took 9 months from initial planning to completion

Recommendation

- It is recommended that operators carry out routine inspections of pipeline river crossings. Publicly available LiDAR data can be used to map/monitor bank movement and spot signs of erosion
- Any remediation work will first require consultation with local government, environment and waterways agencies so that appropriate materials and methods are used





What happened?

- A pipeline operator received a call from the local Fire and Rescue Service to advise that a vehicle had left the road, hit an overground pipeline and caught fire
- A PERO was dispatched and established that the pipeline involved was a water pipeline. The operator's underground pipeline, which was nearby, (purple line on the plan) was unaffected

Findings and key learning points

- The pipeline operator's PERO received a call from the operator's control centre at 04:00 am
- The local Fire and Rescue Service had made contact to inform the operator that a vehicle had left the road in an area near to their pipeline, the vehicle was on fire, and that they were attending the scene
- The FR&S requested that the operator dispatch a representative to the scene
- The PERO first checked whether any leak detection alarms had been activated before travelling to the scene
- The PERO established that the operator's pipeline was unaffected

Recommendation

- It is recommended that operators consider the consequence of vehicles leaving a road in the vicinity of their pipelines
- Operators should make their PERO's aware of this incident





What happened?

- A pipeline operator identified a leak from a 24 barg gas main
- Following excavation, a non-standard repair was uncovered
- Due to the proximity of a water main concrete valve chamber, diversion of the gas main was the only viable solution

Findings and key learning points

- The operator carried out continued fitness-for-purpose reviews of their oldest gas pipelines following a leak in 2021 from a pipeline dating from 1965
- This resulted in annual leakage surveys of similar age pipelines being implemented
- As a result of a leakage survey a leak was detected in another 1967 pipeline
- On excavation, an unusual repair (see photos) was discovered. The domed cap is assumed to encapsulate a fitting. The operator had no records of the repair which is assumed to be of similar age to the pipeline
- A parallel water main runs within 3 metres of the gas main and the concrete walls of a valve chamber encase the gas main
- The water company would not give permission for the concrete to be removed to fit a repair clamp, so a diversion of the gas main was the only solution

Recommendation

- It is recommended that operators consider what steps may be appropriate to ensure the continued fitness-for-purpose of pipelines of similar vintage, include these in their management plan, and keep them under review
- Operators should be made aware that unrecorded non-standard repairs may have previously been carried out



What happened?

- A utility company installed a temporary road over a gas pipeline without the pipeline operator's authorisation or supervision
- The location of the pipeline was known to the utility company as were the procedures that they were required to follow

Findings and key learning points

- A utility company required to install a power cable duct under several pipelines
- The utility company were in possession of all pipeline information and had prepared an approved design for the duct and both temporary and permanent road crossings. They were also aware of the pipeline operators required procedures
- However, the utility company's principal contractor proceeded to strip 250 – 300 mm of top-soil from above the pipelines without permission
- The utility company held an internal investigation resulting in several actions: removal of certain personnel, daily tool-box talks & safety meetings, tightening of the blanket no-dig zone, clearly designated crossing points



Recommendation

- Operators should be aware that despite contractors having all the necessary information and procedures, rules may not be adhered to
- Operators may need to consider increasing their representation at work sites



What happened?

- A landowner instructed their employees to clear a ditch to allow installation of a new drain
- Excavation was carried out by mechanical excavator and crossed a high-pressure pipeline
- The pipeline was not damaged

Findings and key learning points

- A landowner instructed their employees to carry out excavation works but did not advise them of the presence of the pipeline.
- The operatives noted the pipeline marker posts but did not consider the work to be significant enough to warrant contacting the pipeline operator
- The pipeline was not damaged as the excavated ditch was shallower than the pipeline depth of cover (1 m)
- The operator held discussions with the landowner, highlighting the safety consequences of pipeline damage/release of content. The operator also went through the required procedures for works within 50m of their pipeline
- A formal letter was issued to the landowner recording the event and highlighting the relevant responsibilities under PSR (Pipeline Safety Regulations)

Recommendation

- Operators should be aware that infringements can occur from 3rd parties who have ignored pipeline markers
- Operators should consider whether their marker posts are likely to convey the required message regarding excavation



What happened?

- A landowner instructed their employees to clean a ditch without notifying the pipeline operator
- The cleaning was carried out by mechanical excavator and crossed a high-pressure pipeline
- The pipeline was not damaged

Findings and key learning points

- A landowner instructed their employees to carry out cleaning works via WhatsApp message
- The landowner did not advise them of the presence of the pipeline or provide any controls
- The operatives noted the pipeline marker posts but assumed the landowner had notified the pipeline operator
- The pipeline was not damaged as minimal material was removed from the base of the ditch and the concrete protection slabs were unaffected
- The operator held discussions with the landowner, highlighting the safety consequences of pipeline damage/release of content. The operator also went through the required procedures for works within 50m of their pipeline
- The operator provided additional pipeline route maps with 50m corridor highlighted. These were laminated to allow outdoor use and storage in machine cabs

Recommendation

- Operators should be aware that infringements can occur from operatives who have assumed that the landowner has carried out the necessary pipeline checks