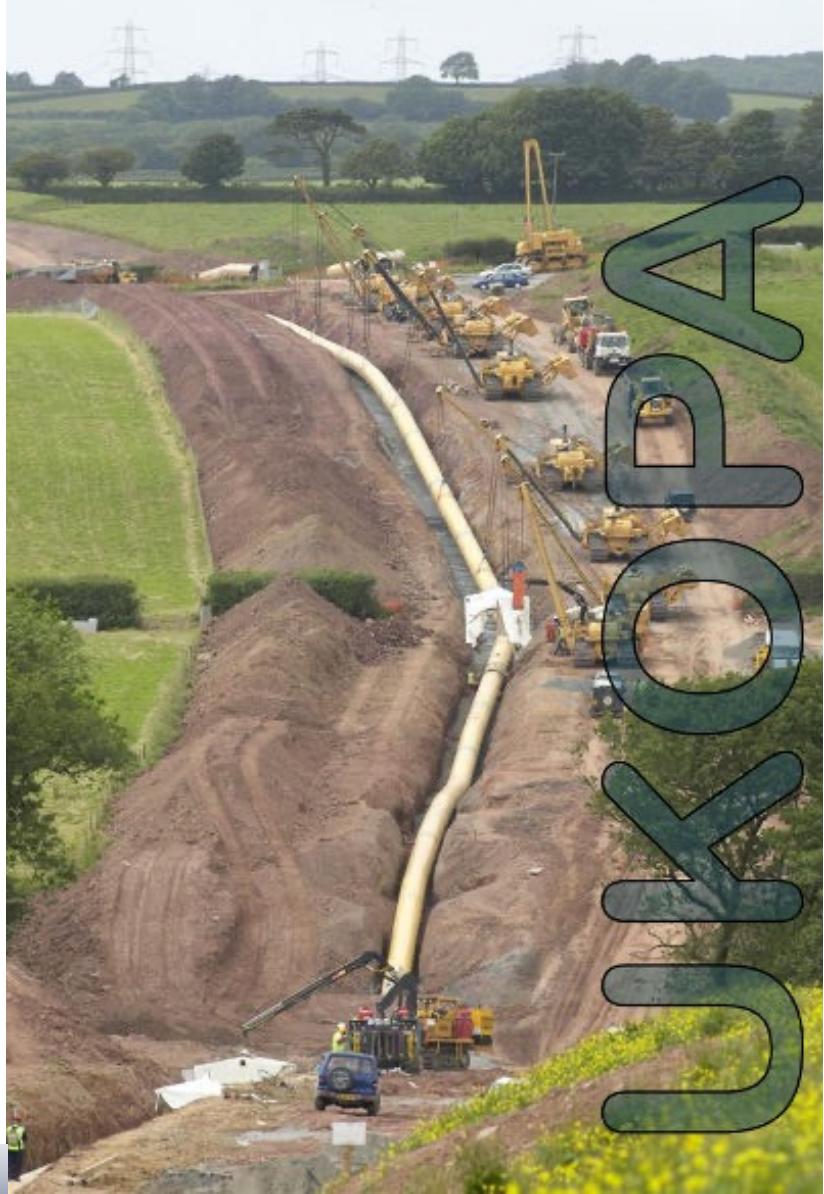


Life of Temporary Repairs

Good Practice Guide
UKOPA/GPG/034

T. Rudd



Good Practice Guide Overview

1. Introduction
2. Scope & Contents of GPG
3. What is temporary?
4. Repair Process
5. Examples of clamps
6. Questions?

Introduction

- New GPG issued in 2022
- Development ongoing since 2021
 - Sub-group from PIWG formed to progress; particular thanks to Richard Price who took lead alongside Stephen Humphreys
- Developed in response to increasing regulator focus on 'Temporary repairs'
 - Little relevant industry guidance included
 - How temporary is temporary?
 - How do you define the life?
- Operators are good at managing the life of their key pipeline assets, but potential gap identified in how we specify, install, log, maintain and ultimately remove temporary repairs
- Key takeaway – such repairs are not “Fit and forget”

Scope & Contents of GPG

- Document is intended to be a high-level guide on how to manage the whole repair lifecycle
- Valid for both liquid and gas pipelines
 - Scope mainly targeted at >7 bar pipelines, but principles applicable below this
- Key topics covered:
 - Types of defect/failure anticipated
 - Definition of a temporary repair
 - Relevant legislation & guidance (PSR, HSE report 2001/038, ACOP and guidance to the Management of Health and Safety at Work Regulations 1999)
 - Methodology of specifying and installing repair
 - Repair lifecycle
 - Types/examples of temporary repair

What is temporary?

- A repair that has a remaining life less than the remaining life of the pipeline due to one or more of the following:
 - The repair does not arrest the failure mode of the defect
 - The repair does not have the same pressure rating as the pipeline and requires a temporary reduction in pipeline operating pressure
 - The repair will degrade/lose strength over time (ageing)

Repair Philosophy (per HSE publications)

- Replace like-for-like.
- Temporary repair until replacement can be carried out.
- Permanent repair where replacement is not practical.

Temporary or permanent?

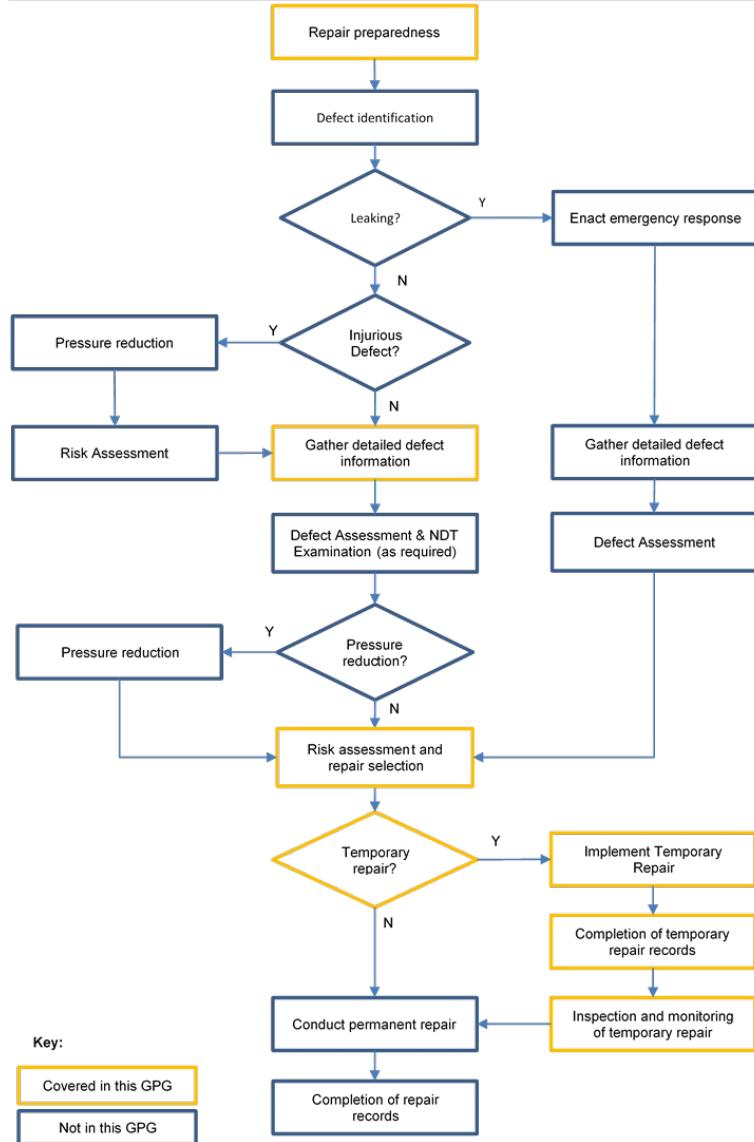
'Temp
70mp
introd

Installed in
1999/2000, 5 year
original design



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Repair Process



- Records vital

- Risk Assessment to consider not only type of repair, but how to safely fit
- Consider MOC for repair fitment (to log assessment) and for any repair life extension
- Temporary Repairs Register vital to track repairs, inspection regime and remaining life
- Ensure you capture installation details and quality pack for repair

Examples of repair types

Composite Sleeve



Examples of repair types

Wet-lay composite



Examples of repair types

Welded Sleeve (Type-A or Type-B)



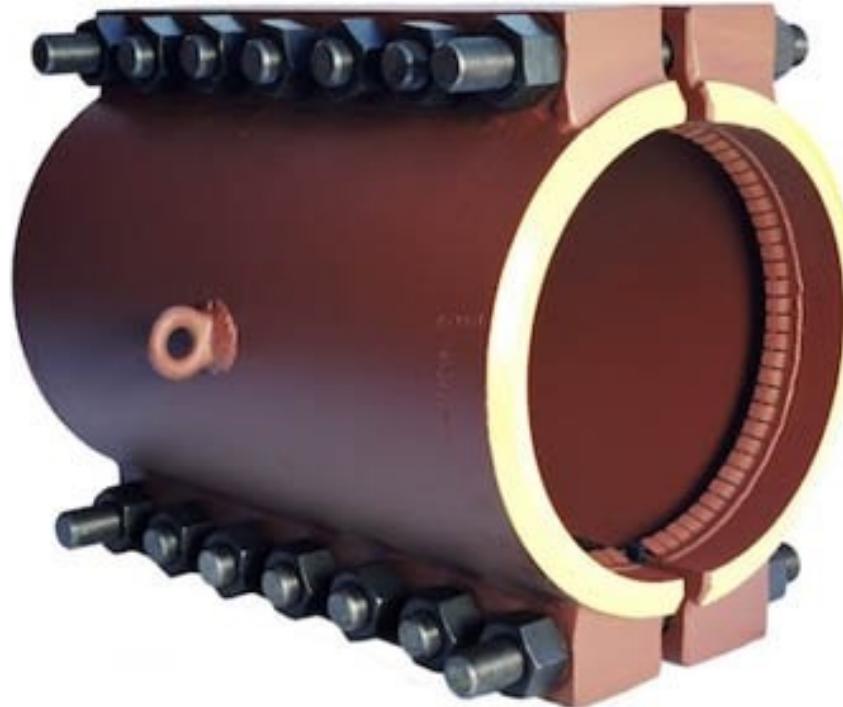
Examples of repair types

Epoxy Shell Repair (ESR)



Examples of repair types

Bolted Clamp/Split Sleeve



Examples of repair types

Pressurised/Injected Structural Clamps



Examples of repair types

Wrap-around/leak seal/ “Waterboard” clamps



Examples of repair types

Pinhole Clamps



Questions?

Thank You

Any Questions?