

## Network Innovation Allowance Progress Report

*Notes on Completion:* Please refer to the appropriate NIA Governance Document to assist in the completion of this form.

Network Licensees must publish the required Project Progress information on the Smarter Networks Portal by 31st July 2014 and each year thereafter. The Network Licensee(s) must publish Project Progress information for each NIA Project that has developed new learning in the preceding relevant year.

### Project Progress

#### Project Title

Alternative Riser Pipe Jointing Method - Pyplok

#### Project Reference

NIA\_NGGD0021

#### Project Licensee(s)

National Grid Gas Distribution

#### Project Start Date

Apr 2014

#### Project Duration

2 Years

#### Nominated Project Contact(s)

Neil Russell – Project Manager and Andy Newton - Innovation Portfolio Manager

#### Scope

The scope of this project includes:

- 1 Review current information regarding the Pyplok system
- 1 Define functional requirements of alternative steel fittings for use on gas riser systems, such as Pyplok
- 1 Conduct approval testing of Pyplok
- 1 Field trial Pyplok

#### Objective(s)

The aim of this project is to assess Pyplok technology to establish its suitability for the application of an alternative jointing method for steel risers, which removes the need for welding (which requires hot work permits) or screwed fittings which can only be used up to 2" diameter. The project will ascertain the testing which is required to ensure that the product is fit for purpose.

#### Success Criteria

Success of the project will be the passing of approval testing of Pyplok technology, as an alternative jointing method for riser pipe work, which removes the need for welding (which requires hot work permits) or screwed fittings which can only be used up to 2" diameter.

#### Performance Compared to the Original Project Aims, Objectives and Success Criteria

The project was split into 2 stages:

**Stage 1** involved the confirmation of the approvals route of the project, a draft test specification. A final report was produced from Stage 1, which outlines the test specification and has a plan for Stage 2 of the project when we are undertaking the gap closure testing. This Project Progress Report gives an overview of this Stage 1 report.

**Stage 2** determined costs, a final test specification and a gap closure action plan.

Following the initial Pyplok information review and determination of the expected functional requirements, DNV GL have determined a test specification for an alternative riser jointing method merging together existing Gas Industry Specifications and National Grid specifications, as well as using their engineering judgements and knowledge on building regulations and potential changes to the building regulations with respect to fire resistance. A comparison was then made between the test specification that DNV GL have prepared and the testing and approvals that Pyplok already has.

The gap between the tests required and the approvals already held is the testing to be undertaken in Stage 2 of the project, along with the preliminary work for live field trials in Stage 3.

The majority of the gap analysis testing to be undertaken is around longer pressure testing at lower pressures than has currently been undertaken by Pyplok. There is little risk that the product will not pass this testing, as the product has been previously used in high pressure situations in harsh environments.

### **Required Modifications to the Planned Approach During the Course of the Project**

At this stage of the project there have been no changes to the planned methodology as the planned approach has proven to be appropriate.

### **Lessons Learnt for Future Projects**

It has become apparent during the project that early engagement with operational departments has ensured that field trials (and associated activities) can be planned and completed easily, leading to the project to run with minimal delays. There will need to be some further trials conducted following the project to move the method to the next TRL level and embed into the business. The Pyplok method, if successful, will be used in conjunction with traditional riser jointing techniques, especially as a replacement when appropriate to welding.