



## NJUG CASE STUDY

### CASE STUDY 64: North London Gas Alliance Safety & Engineering Innovation

#### *Winner of the NJUG 2012 Safety Award*

The National Joint Utilities Group (NJUG) is the UK industry association representing utilities on street works issues. The 38 utility companies and 17 contractors<sup>1</sup> we represent work to deliver gas, electricity, water and telecommunications to both individual consumers and UK plc.

NJUG members need to continue to drive forward further improvements. We have therefore developed the NJUG Vision for Street Works, which revolves around six main principles:

1. Safety is the number one priority
2. Utilities deliver consistent high quality
3. Utilities work together and in partnership with local authorities and contractors to minimise disruption
4. Utilities keep the public informed on all aspects of works
5. Utilities maximise the use of sustainable methods and materials
6. Damage to the underground assets is avoided

This case study is an example of NJUG and its members / associate members delivering on these principles and turning the vision into reality.

#### Overview

In 2012 the **North London Gas Alliance** set out to enhance a number of key areas within its operations in order to further improve safety and engineering compliance, these were: i) Safety Leadership ii) Safe Systems of Work iii) iPhone Applications Development. Their work in these areas has resulted in significant improvement to the personal and process safety of their workforce and operations along with the development of their safety culture.

#### Case Study

**Safety Leadership:** Between January-March 2012 the NLGA cascaded 2 bespoke safety leadership workshops, initially aimed at Senior Management and subsequently their operational supervision. The focus of these workshops was to critically examine NLGA's safety culture with a view to target areas for improvement in their own safety leadership. The sessions utilised a self-assessment questionnaire assessing the management team's strengths and weaknesses, and culminating in a collective agreement towards consistent behaviour, giving clear leadership messages and generating a culture of greater involvement and innovation. In order to build on these workshops the team developed their own "Safety Charter" and a consultation platform called "Smart Talk" designed to allow greater two way communication and to identify innovations of all kinds, but particularly safety.



The development of the Safety Charter and Smart Talk has been very successful; Smart Talk alone has resulted in the generation of over 150 improvement suggestions from the workforce. The most viable of these have been implemented across the NLGA, some of which are included in this case study.

These initiatives were supplemented by the Injury Free Environment (IFE) programme. IFE training was rolled out to the NLGA operational workforce by a group of volunteers including main layers, meter fitters and supervisors, and was completed in January 2012. IFE is aimed at all levels within the company and seeks to build a culture of care and concern for each other along with an openness to being challenged by peers if an unsafe act is observed.

**Safe Systems of Work & iPhone Application Development:** The NLGA has developed and implemented a number of key safety and compliance improvements over the past year. The majority of these innovations are now fully deployed and are making a significant contribution to improving the safety of operations and include:

**New Safety & Technical Compliance Process:** In April 2012 the NLGA launched a new safety / technical compliance monitoring and reward process, to make a step-change in their compliance performance. This process

<sup>1</sup> NJUG's current members are Energy Networks Association (representing electricity and gas), Water UK (representing all water and wastewater companies), National Grid, BT Openreach, and Virgin Media. Our associate members are Clancy Docwra, Skanska, Balfour Beatty, Morgan Sindall, Carillion, First Intervention, Laing O'Rourke, Compass, AMEC, Enterprise, Morrison Utility Services, Fastflow Pipeline Services, May Gurney, CLC Ltd, PJ Keary and Murphy Ltd. Including members through trade associations, NJUG represents forty-one utility companies, seventeen utility contractors.

grouped their engineering teams into “swim lanes” based on the results of the internal Compliance Officer audits. Four tiers were identified including “Improver”, “Dependent”, “Partner” & “Trusted”. A risk based audit regime was then developed concentrating the Compliance Officer’s time on teams who needed the most support. So far it has delivered a performance improvement of 117% in audits, with zero non-compliant findings identified. The first quarterly prize draw was made in July from all teams who had received zero audit findings and cable strikes over the period. The winner received £250 of shopping vouchers.

**New Cable Avoidance Campaign:** In May 2012 NLGA launched a pre-emptive cable avoidance campaign which was cascaded by the Cable Avoidance Technicians prior to the annual peak in damage incidence (June – August each year). To date cable damage frequency rate stands at 0.12p/km which is the best in NLGA’s history.

**Daily Pre Start Briefing Process:** Following an employee suggestion regarding the robustness of the existing risk assessment process, a review group was formed and a new daily prestart briefing process was developed and trialled within the workforce. This new process enhances risk assessment requirements and ensures that the day’s key tasks are assessed by the whole team and that control measures are collectively agreed and implemented.

**Upgraded Hand Arm Vibration (HAV’s) Management Process:** As a result of an internal review of NLGA’s vibration management procedures it was apparent that existing control measures regarding the use of vibrating equipment needed to be more robust. In order to address this, a specialist occupational health monitoring company was employed to undertake surveys on equipment in use by the NLGA & Subcontract partners. This resulted in a vibration crib card, which gives employees advice on exposure limits associated with the tools they are using. In addition to this, a vibration calculator is loaded on to the iPhone to enable teams to calculate their own vibration exposure; greatly enhancing HAV management.

**Minimum Standard Guide for Lifting Operations:** In order to act on concerns raised from an employee forum regarding the safe lifting and handling of materials on site and within depots, NLGA undertook a review of existing lifting risk assessments. From this a simple user friendly guide was developed for slinger signalers; greatly enhancing the operational understanding of required lifting risk controls.

**Collaboration with the HSE & GB Drilling to Improve the Guarding on Horizontal Directional Drilling (HDD) Rigs:** During a planned meeting with the Health & Safety Executive, industry-wide concerns were highlighted with the management of guarding on HDD rigs. Working with GB Drilling, a safe system of work was developed and a retrofit guarding solution for HDD rigs to prevent entanglement hazards. NLGA approached a number of other suppliers in this field however, GB Drilling were the only company to provide a fully compliant solution and so are currently the only approved vendors within NLGA.

**Collaboration with JCB to Improve the Safety of their Excavator Servo Isolators “Dead Man’s Handles”:** This initiative resulted from a minor injury due to the design of the Servo Isolator (Dead Man’s Handle) which made inadvertent operation of the machine possible as a result of entanglement with the servo isolator. JCB were approached about the issue and developed a software solution to make the operation of the servo isolator a 2-stage process. This vastly reduced the likelihood of accidental operation and JCB have committed to making this software upgrade available to all of their national and international suppliers.



**New Winching Operations Pack:** This Operations Pack complemented the role out of a winching permit issued by National Grid and ensured that all required safety documentation, risk assessments and PUWER & LOLER calibration requirements of winches were kept in one simple pack for ease of reference for operational teams.

**New Guidance Document for Trench Support & Anchorage:** This guidance was produced to enhance the ease of interpretation of procedural requirements covering the installation of trench support within working excavations & anchorage of gas mains at working pressure. These procedures have been fully approved by National Grid and GL Noble Denton and are being incorporated into National Grid’s own policies. NLGA has developed a bespoke deep excavation and anchorage course which has been approved by City & Guilds. This is being rolled out at their Romford Training School for all Team Leaders, Supervisors and Construction Engineers.

**Multiple iPhone Application Developments:** The NLGA pioneered the development of iPhone software to introduce gas service testing applications. These applications have now been extended to include a gas meter pressure testing app, a safety inspection app, a lone working app, a document portal holding SHEQ guidance for operational teams and a hazard and near miss reporting app.

