

ASSESSMENT PLAN

GAS NETWORK TEAM LEADER

Neil Snell
Chair of Gas Network Trailblazer Project Team
October 2015
Version 1

Contents

Overview.....	2
Suggested On-Programme Training and Assessment Plan	3
Induction and Core Skills Training (Stage 1)	3
Technical Training (Stage 2)	3
Technical Training (Stage 3)	3
English and mathematics	3
Work log	3
Suggested training/development review meetings.....	3
Suggested observation of Behaviours and Skills	4
End-Point Assessment (Last three months)	4
Portfolio Assessment.....	4
Technical experts	5
Work log	5
Trade test	5
Knowledge Assessment	5
Final Decision Panel.....	6
Grading	6
Assessment organisations.....	7
Implementation.....	8
Affordability.....	8
Manageability/Feasibility	8

Overview

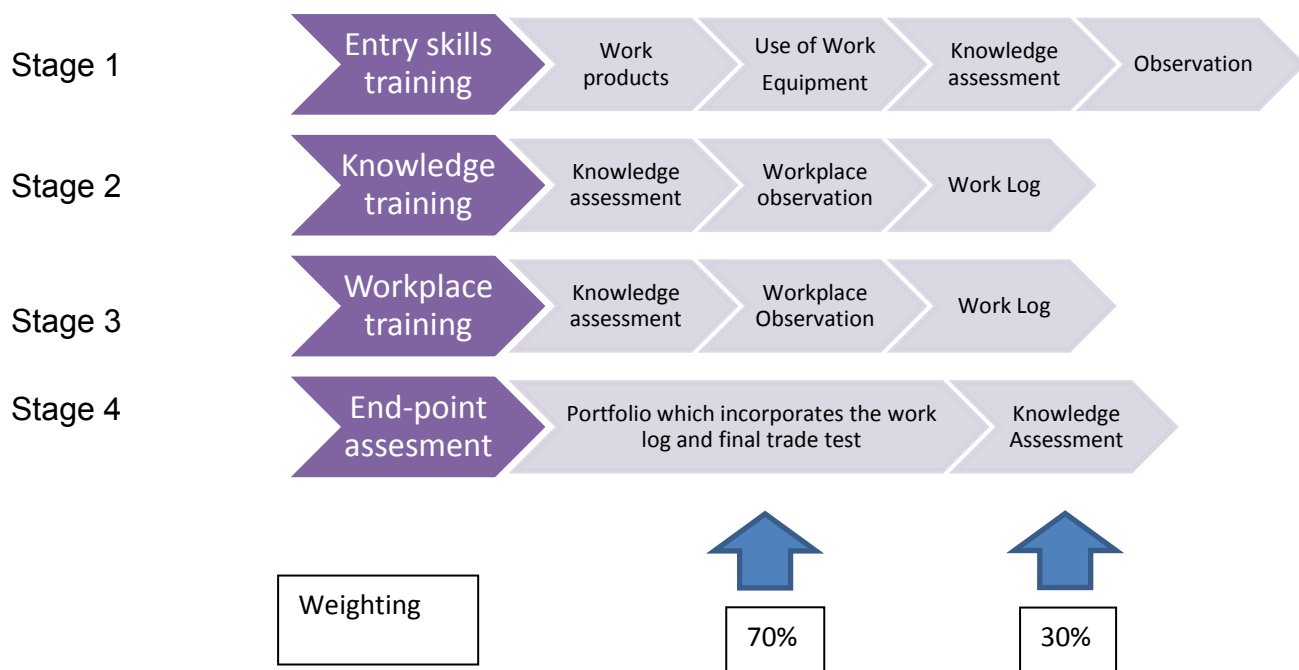
This assessment plan is to accompany the Gas Network Team Leader Level 2 apprenticeship standard. The role of a Gas Network Team Leader primarily involves the installation and repair of gas mains or gas services that supply gas to both domestic and commercial properties. The team for operational safety reasons is usually made up of two or, on occasion three people, this being a Team Leader, supported by one or more assistants. The apprenticeship has established a set of core skills, knowledge and behaviours across two specialist areas: Gas Network Team Leader (Main Layer) and Gas Network Team Leader (Service Layer). All apprentices must demonstrate competence across the core requirements and one of the specific specialist requirements.

Employers in this sector are taking the opportunity afforded by the introduction of apprenticeship standards to radically re-model the approach to assessment. This capitalises on existing industry best practice while utilising end-point assessment.

This plan outlines the end-point assessment that apprentices must successfully complete to achieve their apprenticeship. The Team Leader apprenticeship will typically take from 12 up to 18 months, with the end-point assessment being taken in the last three months. Performance in the end-point assessment will determine the grade awarded: fail, pass or distinction.

The employer group has also developed a suggested training plan, which employers and training providers may use to develop skills, competence and knowledge. This is summarised below.

Suggested training/assessment timescales and methods prior to the End-Point Assessment



Suggested On-Programme Training and Assessment Plan

The suggested on programme training can be divided into three distinct phases:

Induction and Core Skills Training (Stage 1)

The aim of this stage is to ensure all apprentices are trained to work safely at all times. It should provide insight on employer and co-worker expectations and how and where the apprentice can seek guidance and support. The acquisition of these key skills provides a vital foundation for the apprenticeship. Training modules may include Utility Safety Health and Environmental Awareness (Gas) Scheme (SHEA), which are externally tested and standardised.

Technical Training (Stage 2)

To ensure development of the full range of knowledge required for this apprenticeship, it is suggested that the employers develop a technical knowledge solution. Training should include engineering and maths relevant to the industry and set in that context; and provide the range of underpinning knowledge required to accelerate skills development and successfully tackle the end-point assessment. There are various routes to knowledge attainment, such as pre-existing Level 2 Engineering qualifications. Further development work by the Gas Network's trailblazer group will respond to the employers' desire to develop an Industry Standard Knowledge Solution, which will become the industry's recognised qualification.

Technical Training (Stage 3)

Stage 3 should be when greater technical skill and knowledge is acquired. As the apprentice progresses through their training, it is suggested that they are assessed on particular tasks or procedures or items of equipment. This will enable apprentices to build up the full range of skills, knowledge and behaviours required to successfully complete the end-point assessment.

Suggested workplace training and development - Assessment activities may consist of:
<ul style="list-style-type: none">• Work log – write-up of practical activities, of skills and competences• Observation – practical observation of work activity in terms of quality and behaviour• Knowledge assessments – set, marked and graded against the specific core modules and specific requirements

English and mathematics

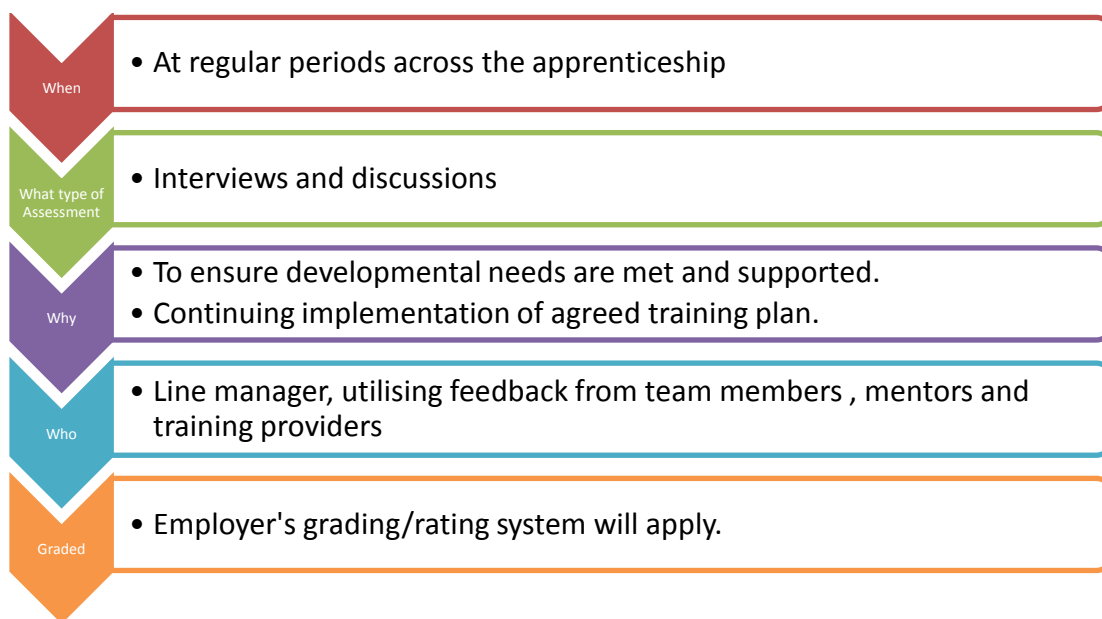
Apprentices who haven't already achieved English and mathematics at level 1 (or higher) must do so before being entered for the end-point assessment.

Work log

As the apprentice progresses through their training, they should build up evidence on the full range of skills, knowledge and behaviours required by the standard and be assessed on particular tasks or procedures or items of equipment. These are recorded in a work log. The work log must be sufficient to evidence the apprentice can apply skills, knowledge and behaviours required in a variety of tasks. Progress review documentation should also be included. The apprentice's supervisor will typically support the development of the work log in accordance with company policy and procedures, although the assessment organisation will provide guidance on the content of the work log. A summative assessment of the work log will form part of the end point assessment portfolio assessment – see below.

Suggested training/development review meetings

It is suggested that training and assessment is agreed and documented in a personal training/development plan. Regular review meetings should be programmed to ensure training/development needs are met and supported. This could include additional training, or ways of accelerating learning, as required by the apprentice. This will typically be an interview with their line manager or apprentice mentor. Feedback from workplace mentors and team members may be included to contribute towards individual personalised training/development plans. A final review by the apprentice's employer must be completed in the final three months and documentation included in the apprentices work log – see above.



Suggested observation of Behaviours and Skills

Apprentices work in an environment where their safety, the safety of those around them and the infrastructure they work on are of paramount importance. Therefore, observation of behaviours and approach are an integral and developing part of the apprentice progression throughout the apprenticeship and should be assessed using existing supervisory practice and as part of the on-programme assessment.

End-Point Assessment (Last three months)

Successful achievement of the end-point assessment will lead to final certification of the apprenticeship and demonstrate that the apprentice is a fully authorised competent worker, who can work safely and confidently to maintain or repair a range of systems. It uses the following assessment tools:

- Portfolio Assessment, incorporating work log summative assessment and trade test documentation; marked by technical experts usually sourced from the apprentice's employer (Weighting 70%)
- Knowledge Assessment; independently marked by an assessment organisation (Weighting 30%).

The end-point assessment may be typically completed over a three month period to accommodate work scheduling and cost effective planning of resources.

Although the apprentice should only be recommended for end-point assessment when they are ready; employers should have a remediation process in place to support any candidate who fails to meet the conditions of the end-point assessment.

Further details on each assessment tools are provided below.

Portfolio Assessment

The apprentice will submit a portfolio consisting of a work log typically developed during the apprenticeship – see above, together with a final trade test completed in the final three months. The portfolio provides the opportunity to demonstrate skills, knowledge and behaviours across the standard - core and specific requirements. The portfolio will be marked by a technical expert, using standardised criteria and documentation; recording coverage against the standard, highlighting any performance above or below and awarding a preliminary fail, pass or distinction. Further information on technical experts, the work log and trade test is provided below.

Technical experts

Technical experts will be appointed by assessment organisations. They may be nominated from within the apprentice's own organisation or external if required, to respond to the needs of smaller employers. They will not have directly worked with the apprentice or participated in their learning and training; must be able to demonstrate an appropriate level of competence i.e. training and experience to undertake the role and hold an assessor qualification to be approved by the assessment organisation for the purposes of conducting elements of the end-point assessment. This sector is sensitive from a safety and regulatory perspective. This means decisions on competence have implications not only for individual safety, but also reputation and litigation. As a result judgements of competence and moderation are required to be by necessity reliable, rigorous and robust.

Work log

A technical expert will review the apprentice's work log and undertake a summative assessment of competence against the standard's skills, knowledge and behaviours. This will include an interview with the technical expert where currency of knowledge will be checked by verbal questioning around reasons for choices, methods, materials, risk, health and safety. This will typically last one hour and will confirm understanding and ability to apply knowledge as part of their total job competence.

Gas team leaders will be expected to:

- Undertake and document risk assessments
- Comply with workplace health, safety & environmental practices, maintaining a safe and secure working environment
- Follow engineering instructions and company procedures
- Install gas engineering assets, components and associated equipment
- Carry out repairs to gas network infrastructure assets as required
- Restore gas network infrastructure assets to operational condition
- Install, test, purge and commission gas assets
- Replace emergency control valves
- Communicate instructions to co-workers within the team
- Operate powered tools and equipment for network operations
- Locate and avoid supply apparatus and sub-structures
- Comply with the New Roads and Street Works Act requirements for signing, lighting and guarding
- Use approved gas detection equipment to ensure safe environment
- Use Personal Protective Equipment (PPE) and safety equipment in accordance with manufacturer's instructions and employer policy
- Liaise with gas consumers, statutory agencies and members of the public
- Obtain and analyse information to facilitate decision making
- Communicate instructions to co-workers within the team
- Liaise with emergency services and other statutory authorities as necessary
- Organise additional resources to facilitate repairs as required
- Record information, complete job reports and process.

Trade test

Apprentices will complete a final practical assessment known as a 'trade test' in the last three months, providing the opportunity to synoptically demonstrate core and specific skills, knowledge and behaviours. For example, the apprentice could be assigned a task(s) to install and commission network assets. The apprentice will need to apply the appropriate principles, procedures and knowledge and explain what and why they are undertaking a particular approach. They will be expected to select and use the appropriate equipment and tools, protect themselves and others from potential harm that can arise from their work. The test will be awarded a pass or fail:

- Team Leader Service Layer should expect to be assessed on the installation of gas services utilising electro-fusion pipe joining techniques, the connection of gas services to gas mains, the testing and commissioning of gas services
- Team Leader Main Layer should expect to be assessed on the installation of gas mains utilising butt-fusion and electro fusion joining techniques, the use of flow stopping equipment to facilitate work on pressurised mains, the connection of new mains to existing (metallic) mains, repair techniques and the testing, commissioning and de-commissioning of gas mains.

A technical expert will administer and mark the final trade test which will be included in the portfolio.

Knowledge Assessment

Apprentices will be required to complete a standardised knowledge assessment in the last three months that will be

administered and marked by an independent assessment organisation. The assessment will enable apprentices to demonstrate knowledge across the Gas Team Leader Standard - core and specific requirements, i.e. Team Leader – Main layer and Team Leader – Service Layer. The assessment may be a combination of short answer questions and multiple choice and taken by the apprentice under examination conditions. A pass will be a minimum of 70 per cent with a distinction for this element awarded to those with 90 per cent or above. The outcome of the knowledge assessment will be submitted to the final decision panel. Some questions will be safety critical and will necessitate a correct answer. These will be determined and standardised by the assessment organisation in conjunction with employers.

Final Decision Panel

The assessment organisation will appoint and be responsible for the operation of the final decision panel. Decision panels will consist of three people:

- Technical expert from apprentice's employer
- Technical expert from another employer who is therefore independent of the apprentice, their employer and training provider and
- Another technical expert from another employer or from a relevant professional body, who is therefore independent of the apprentice, their employer and training provider.

One of the independent panel members will act as chair of the panel. The decision panel will check all available evidence and discuss to enable the independent chair to make the final decision of whether to award an overall fail, pass or distinction. Therefore, someone independent of the apprentice and their employer will always determine the grade awarded. The assessment organisation will co-ordinate the final decision panels and observe and intervene where necessary to ensure they are operated in accordance with the guidance, ensuring comparable decisions consistently and comparably across panels and over-time.

Grading

Grading will be standardised to ensure consistency across the sector. The apprenticeship will be graded fail, pass and distinction. The final grade will be determined by collective performance in the end-point assessment's two assessment tools. The **weighting** of the apprenticeship is 70 per cent on the portfolio which incorporates the work log and trade test and 30 per cent to the independent knowledge assessment. A points system will determine if the apprentice has achieved a pass or distinction and is described below:

Pass – A pass grade (or higher) must be achieved in both the portfolio and knowledge assessment for the apprentice to receive a pass overall. 5 Points (3.5 Points Portfolio + 1.5 Points Knowledge Assessment)

Distinction – A distinction grade must be achieved in portfolio and knowledge assessment to achieve a distinction 10 Points (7.0 Points portfolio + 3 Points Knowledge Assessment). A final distinction grade will only be awarded if this has been achieved in both end point assessment tools.

Portfolio %	Points	Grade	Knowledge Assessment %	Points	Grade
<69	0	Fail	<69	0	Fail
70 – 84	3.5	Pass	70 - 89	1.5	Pass
85-100	7.0	Distinction	90 - 100	3.0	Distinction

To achieve a 'pass' the apprentice will be demonstrating competence across the standard. To achieve 'Distinction' the apprentice will be demonstrating performance over and above the standard. The following table outlines the scoring criteria that must be applied; detailed guidance will be developed by the assessment organisations.

End Point Element	Fail Criteria	Pass Criteria	Distinction Criteria
Portfolio	Fail <69% <ul style="list-style-type: none"> • Portfolio lacks sufficient evidence and structure to demonstrate knowledge, skills and competency 	Pass (70%-84%) <ul style="list-style-type: none"> • Portfolio well-structured and contains sufficient and robust evidence to demonstrate knowledge, skills 	Distinction (85%-100%) <ul style="list-style-type: none"> • The portfolio demonstrates evidence which is over and above the requirements of the standard through

	<p>through the trade test and progress reviews across the standard</p> <ul style="list-style-type: none"> • Fail in the final trade test • Poor application of knowledge in the work place • Poor reasoning skills displayed on practical tasks • Negative team working and interpersonal skills • Subject to a company disciplinary procedure 	<p>and competency across the standard through the trade test and progress reviews across the standard</p> <ul style="list-style-type: none"> • Pass in the final trade test • Good application of knowledge in the work place • Good critical reasoning skills displayed on practical tasks • Good team working and interpersonal skills and ability to respect the opinion of others 	<p>the trade test and progress reviews across the standard</p> <ul style="list-style-type: none"> • Pass in the final trade test • Outstanding application of knowledge in the work place • High level of critical reasoning skills displayed on practical tasks • Outstanding team and interpersonal skills and the ability to respect the opinion of others
Knowledge Assessment	Score <69%	Score 70-89%	Score 90% and above

Assessment organisations

The model involves greater employer leadership in the apprenticeship development, implementation and operation, whilst maintaining a high level of scrutiny and assurance within a Quality Framework.

The assessment organisation's primary role will be to ensure that all decisions are consistent, credible and undertaken with integrity, it will:

- provide documentation and guidance in relation to the requirements of the apprenticeship, log book, trade tests, marking of the portfolio, employer standardisation meetings and final decision panels
- monitor technical experts and provide remedial support to ensure consistency and reliability of judgements on a risk based basis, for example, those newly qualified
- develop a range of trade tests for the specialised role. Assessment organisations must consult with representative technical experts when developing trade tests. The assessment organisation must ensure that there is consistency and comparability in terms of the breadth and depth of each trade test assessment, to ensure assessments are reliable, robust and valid and ensure competency accord across the industry
- develop knowledge assessments to meet the needs of each specialised role. Assessment organisations must consult with representative technical experts when developing the knowledge assessment. The assessment organisation must ensure that there is consistency and comparability in terms of the breadth and depth of each knowledge assessment, to ensure assessments are reliable, robust and valid and ensure competency accord across the industry
- develop compensatory assessment for learners with special requirements to allow reasonable adjustments to be made to assess the knowledge, skills and competence of the apprentice through alternative assessment techniques. Whilst, these will remove barriers to participation, they must be designed to ensure judgements are not compromised to health and safety and legal requirements

- co-ordinate the final decision panels and observe and intervene where necessary to ensure they are operated in accordance with the guidance
- approve technical experts for the purposes of conducting trade test assessments, portfolio review, employer standardisation and final decision panels based on checks upon knowledge, experience, assessment qualifications and independence
- provide training for technical experts in terms of the requirements of the apprenticeship and operation and marking of the assessment tools and initial grading
- provide training for technical experts in undertaking fair and impartial assessment and making judgements about performance and the application of knowledge and behaviours within a workplace setting
- provide training for final decision panel members, in terms of the panel operation and grading; and how to communicate the decisions
- hold regular standardisation events for technical experts and panel members to ensure consistent application of the guidance
- ensure assessment organisation staff are trained in assessment and moderation processes and undertake regular continuing professional development
- develop and manage a complaints and appeals procedure.

All assessment organisations must be on the Skills Funding Agency's Register of Apprentice Assessment Organisations (RoAAO). Assessment organisations must work collaboratively to ensure standardisation in delivery of assessment services for the standard e.g. hold cross-organisation standardisation events.

Implementation

Affordability

Due to the complexity of the operations undertaken in the Gas Networks, the initial indicative end-point assessment costs is expected to be in the region of £3808, approximately 26% of external cost of apprenticeship. In addition, the skills and knowledge of the apprentices tested at the end-point assessment will be in a realistic environment using expensive, plant and materials that may be scrapped post assessment. This approach adds significant costs to the process but is seen as essential to ensure authentic competence. The development work required would allow the best market solutions to emerge, which satisfy employer requirements within the developing co-investment apprenticeship model.

The moderation panel will conform to a standardised process, which will be independently assured with independent third party representation beyond the employer. This will ensure fairness and equality for all, while consistently delivering a holistic test of the accumulated knowledge of the apprentice. The standardised approach will ensure affordability.

Manageability/Feasibility

There are sufficient technical experts/assessors both geographically and within the sector to meet the needs of end point assessment. These are mainly located in the work place and at the cutting edge of new technical developments within the sector. It is expected that there would be in the region of 40 new starts annually when established, supported by a final decision panel which will meet four times per year to meet demand. Employers want to supply the technical experts who will make the final judgements on grading of the apprentice to raise the standards and quality across the sector. While we envisage a three year 'accreditation' cycle (extending to five if no change looks to be required), we also acknowledge that we need to be prepared to monitor and evaluate early adopters reactions and performance to ensure manageability/feasibility.

To help with manageability, and afforded by the existence of knowledge specifications, a number of existing qualifications and training programmes can be mapped to the Gas Team Leader Trailblazer requirements and approved as able to deliver the knowledge requirements for this apprenticeship. This also allows knowledge to be delivered via knowledge 'solutions' (including training programmes) rather than just qualifications.

Employers have some internal capability and links to external partners capable of delivering the required number of apprentices. Employers are expecting to increase the numbers of apprentices and are looking at ways to stagger intakes and make effective use of their internal resources. Employers across the sector work collaboratively to share best practice and training and assessment resources. Employers are planning to build their internal capacity and capability for assessment.

Approved assessment organisations will need to be undertake work to develop the end-point assessment.