

Scottish Apprenticeships

A

MODERN APPRENTICESHIP

IN

Radiation Protection Monitoring At SCQF Level 5

FRAMEWORK DOCUMENT
FOR
SCOTLAND

Cogent Skills

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September 2020

Cogent skills
for science industries

Amendments to this framework

Version	Date of Change	Amendment	Comments

This framework document is a controlled document. The latest version can be found on the Skills Development Scotland website here:

<https://www.skillsdevelopmentscotland.co.uk/what-we-do/apprenticeships/modern-apprenticeships/modern-apprenticeship-frameworks/>

Contents

Apprenticeships in Scotland	6
Modern Apprenticeships in Radiation Protection Monitoring	7
Summary of Framework	9
The Framework	10
Registration and certification	11
Recruitment and selection	13
Equal opportunities	13
Health and safety	14
Contracts	13
Employment status of Apprentices	13
Terms and conditions of employment	13
Training and development	13
Consultation	17
Career progression	19

Appendices

Appendix 1	Stakeholder Responsibilities	20
Appendix 2	Modern Apprenticeship Centres (MACs)	23
Appendix 3	Training Agreement and Training Plan	24

Apprenticeships in Scotland

This framework document is for the use of developers or SSCs reviewing existing or developing new apprenticeships via the Standards and Frameworks contracted methodology to submit to the Apprenticeship Approvals Group (AAG). Foundation and Graduate currently have their own bespoke templates.

For those apprenticeship developments via the new facilitated approach methodology (Technical Expert Group TEG) these should be submitted to AAG on their bespoke framework and standards documentation.

What are Apprenticeships?

There are six models of Apprenticeship in Scotland offering qualifications obtained at school with the Foundation Apprenticeship programme, and for those in paid employment, through the modern, technical, professional, higher and graduate apprenticeships. These are:

- a) Foundation Apprenticeships at SCQF level 6
- b) Modern Apprenticeships at SCQF levels 5 6 and 7
- c) Technical Apprenticeships at SCQF levels 8 & 9
- d) Professional Apprenticeships at SCQF levels 10 - 12
- e) Higher Apprenticeships at SCQF level 8
- f) Graduate Apprenticeships at SCQF levels 9 – 11

Modern to Graduate Apprenticeships offer those aged 16 or over paid employment combined with the opportunity to train for jobs at craft, technician and management level. Foundation Apprenticeships are delivered in senior phase of school and are not employed.

Who develops them?

Apprenticeships are normally developed by Sector Skills Councils or a Standards Setting Organisations consult with employers and key partners in their sector to produce a training programme, which meets the needs of employers.

Who are they for?

Modern to Graduate Apprenticeships are available to employees aged 16 or over. Employees need to demonstrate to their employer that they have the potential to complete the programme. All Apprentices in Scotland must have a demonstrable need to acquire significant new knowledge and skills to fulfil their job role. The apprenticeship framework selected for the employee must be the most appropriate learning programme generally available to that individual, providing such knowledge and skills. While foundation apprenticeships are delivered within the senior phase of schools.

What's in a Scottish Apprenticeship?

In Scotland, there are more than 80 different Scottish Apprenticeships and they are all designed to deliver a training package around a minimum standard of competence defined by employers through SSCs. They all contain the same 3 basic criteria:

- A relevant SVQ (or alternative competency based qualifications)
- Core Skills or Career Skills
- Industry specific training

Details of the content of this specific Apprenticeship are given in the next section.

Modern Apprenticeships in Radiation Protection Monitoring At SCQF Level 5

Overview of the Scottish Nuclear Industries

The nuclear sector in Scotland provides high value jobs – many highly-skilled and long-term – to approximately 10,153 people (*Source: Cogent Skills Labour Market Intelligence data for the Nuclear Workforce Assessment 2019*). There are two operational power stations, providing about 43% of Scotland’s electricity, with two more stations and a number of research reactors currently being decommissioned. As well as the civil power sector, considerably more people are employed in maintaining the UK’s nuclear deterrent in Scotland. HM Naval Base Clyde, at Faslane, is the home port of the nuclear-powered submarines of the Vanguard and Astute classes – while the Rosyth dockyard in Fife undertakes decommissioning, defuelling and storage of previously operational submarines.

The majority of employment in the nuclear sector in Scotland is therefore concentrated in power generation, decommissioning and defence, along with their associated supply chains.

Radiation Protection

The nuclear sector has a strong embedded safety culture, and radiation protection is an essential part of ensuring that all operations are conducted safely and securely. Employment in this field is technically specialised and subject to regulation by the Office for Nuclear Regulation and the Scottish Environmental Protection Agency.

Radiation Protection Monitors (also known as Health Physics Monitors) are fundamental to this part of the sector, conducting the day-to-day checks and monitoring that ensure compliance with radiation protection legislation and organisational policies across all of the industry sectors outlined above. The Health Physics Monitor will undertake monitoring for personnel, surface and airborne contamination levels and dose rates, recording the levels detected and responding accordingly. They will be part of their organisation’s emergency response arrangements.

At meetings of the UK-wide Nuclear Standards Advisory Group in 2018, Scottish nuclear employers set out the need for vocational qualifications and apprenticeships in radiation protection in Scotland, to support the recruitment and development of new staff in this area over the next few years.

The modern apprenticeship will contribute to the added value of the Scottish economy by providing a route to employment for this key specialist role – one which, although not large in terms of absolute volumes, is vital to allowing the operation of other functions in the nuclear sector to the highest levels of safety.

Apprenticeship route

Nuclear sector employers have a long history of using the apprenticeship route to develop the pipeline of young people into the workforce, in Scotland and across the UK. However, this is the first nuclear-specific Scottish Modern Apprenticeship Framework, and will start to align the availability of apprenticeships in Scotland to the rest of the UK.

The benefits of a modern apprenticeship route include a structured programme of learning embedded in the workplace, aimed primarily at young entrants to the sector. The inclusion of Core Skills, on-the-job and off-the-job learning are all intended to ensure that young people develop rounded competence in the role

as they progress through the apprenticeship. In addition to achieving an SVQ, apprentices' planned competence and development are managed within their employing organisations to supply the new talent required in the sector. It is common for nuclear sector employers in Scotland to have dedicated Apprentice Managers to provide monitoring, guidance and oversight of all apprentice programmes from recruitment to completion.

The completion of an apprenticeship is has a valuable recognition in the nuclear sector throughout the UK, and in other sectors, over and above the achievement of an SVQ. Employers are keen to encourage this status for young people and have developed the Modern Apprenticeship accordingly.

Summary of Framework

Diagram showing the contents of the Scottish Modern Apprenticeship in Radiation Protection Monitoring

Duration

This Modern Apprenticeship will typically take 2 years to achieve competence as a Radiation Protection Monitor

Mandatory outcomes

SVQ or alternative competency based qualification
 - The following must be achieved:

- SVQ in Radiation Protection Monitoring at SCQF level 5 (GQA Qualifications) GR90 45

Work Place Core Skills

- Communication SCQF Level 4
- Working With Others SCQF Level 4
- Problem Solving SCQF Level 4
- Information and Communication Technology SCQF Level 4
- Numeracy SCQF Level 4

All Work Place Core Skills are embedded in the SVQ and do not need separate certification.

Optional Outcomes

Additional SVQ Units/Qualifications/Training

Health Physics Monitoring in the Nuclear Industry (GQA Qualifications)

The SSC should include a relevant VQ and Work Place Core Skills dependant on the MA level. The following provides a guide against each MA.

MA level	VQ level	Minimum Core Skills level
5	5	SCQF level 4
6	6	SCQF level 5
7	7	SCQF level 6

Please remove any boxes that are not required within the mandatory component.

All Scottish MA Frameworks must contain a relevant SVQ or equivalent competency based qualification. Please use correct naming convention for SVQs (SVQ in ... at SCQF ...)

All Scottish MA Frameworks must contain all 5 Work Place Core Skills

Workplace Core Skills must be applied at a minimum required level according to the level of the Modern Apprenticeship. Different levels may be acceptable, higher or lower, but SSCs would need to provide evidence to justify this.

Please make it clear in this section which Work Place Core Skills need to be separately certificated and which do not. You should also provide a Work Place Core Skills mapping for all Work Place Core Skills that are not embedded. Please state clearly where embedded or certificated separately.

The Scottish Government is keen to see language qualifications included in all MA Frameworks and SSCs are encouraged to include these where appropriate

Only give qualification codes where there is only one awarding body. No code should be detailed where there multiple awarding bodies.

If no enhancements are required, remove this box.

All sectors should encourage the achievement of additional awards, qualifications and training.

The Framework

Duration

It is expected that apprentices following this Framework will typically take 2 years to complete it. This includes approximately 90 days for off-the-job training.

Mandatory Outcomes

SVQ(s)/ CBQs

Each apprentice is required to achieve the following Qualification:

- SVQ in Radiation Protection Monitoring at SCQF level 5 (GQA Qualifications) GR90 45

All Scottish Modern Apprenticeships must contain a relevant Scottish Vocational Qualifications (SVQs) or Competency Based Qualifications (CBQs). SVQs and CBQs are work-based qualifications based on National Occupational Standards of competence drawn up by representatives from each industry sector. They are made up of units – normally between six and ten – which break a job down into separate functions reflecting the different kind of activities of a job. SVQs and CBQs are available at a range of levels – although most are at SCQF Levels 5, 6 and 7 (SVQ Level 2 and 3). When someone has achieved an SVQ or CBQ, there is a guarantee that they have the skills and knowledge needed to do their job.

Work Place Core Skills

Each apprentice is required to achieve the following core skills:

Communication SCQF Level 4
 Working with others SCQF Level 4
 Problem Solving SCQF Level 4
 Information and Communication Technology SCQF Level 4
 Numeracy SCQF Level 4

The Workplace Core Skills listed above are fully embedded in the SVQ. No separate certification of these Core Skills is necessary.

Core Skills are skills and abilities which everyone needs in their work. This is true for every job in every workplace. Core Skills also feature in National Qualifications such as National 5s and Highers and from 2000, Scottish candidates have been issued with a Core Skills profile on their Scottish Qualifications Certificate. Candidates who have already been certificated as achieving Core Skills at the levels given above – either in the workplace or at school or college - do not need to repeat these Work Place Core Skills as part of the Apprenticeship Framework.

Enhancements

None

Optional Outcomes

Level 2 Certificate in Health Physics Monitoring in the Nuclear Industry (GQA Qualifications)

To achieve the optional qualification (if selected by the employer), the apprentice must achieve all the units.

Mandatory Units

Unit No. Unit Name

1	Introduction to Radiation Protection
2	Risk and Dose Restriction
3	Radiation Protection Equipment
4	Theory of Workplace Monitoring and Contamination Control

PROCESS OF ASSESSMENT

The process of assessment for this qualification is by a 2-hour external examination. The external examination will be taken by the learner at the GQA Qualifications approved Examination Centre and all learners must be registered with GQA Qualifications for the qualification.

Examinations will be conducted in accordance with GQA Qualifications' requirements to maintain national standards and rigorous quality assurance.

The questions have been developed by subject experts from the sector and directly relate to the unit requirements contained in this Qualification Handbook. To achieve the qualification learners must pass every unit in the external examination. Should a learner not pass all the required units from a qualification they will receive a unit certificate for the units they have achieved and will need to register to re-sit the failed units. Once all units have been achieved, a certificate for the full qualification can be issued.

Examinations will be held at predefined dates as determined by the Awarding Organisation. Subject experts, provided by GQA Qualifications, will mark and moderate all examination papers returned by the Examination Centres and Centres will be notified of the results.

Centres will be externally verified by GQA Qualifications to ensure that examinations and the centre have been conducted at the required standard.

For learners to achieve the Level 2 Certificate in Health Physics Monitoring in the Nuclear Industry they must achieve a pass in the external examination.

Further information regarding GQA Qualifications' requirements for Externally Examined Knowledge-based qualifications can be found in the GQA Qualifications Centre Portfolio.

Registration and Certification for Modern Apprenticeship

This Scottish Apprenticeship is managed by Cogent Skills. The SSC is the first point of contact in Scotland for any enquiries in relation to the Framework. Contact details:

Ian Lockhart
Standards Manager
Cogent Skills
Unit 5 Mandarin Court, Centre Park
Warrington
WA1 1GG

Telephone: 01925 515223
E-Mail: ian.lockhart@cogentskills.com

The SSC will register Scottish Apprentices undertaking this Framework. **All apprentices undertaking this framework must be registered with the SSC within 4 weeks of starting their apprenticeship.**

In the case of Modern which receive funding it is acceptable for the Skills Development Scotland Training Plan to be used on the condition that it includes all relevant information as set out in the Training Plan.

The SSC will issue a Certificate of Completion to those Modern and technical Apprentices who have completed the mandatory outcomes of the Framework. Before a certificate is issued, training providers must submit evidence to the SSC that the mandatory outcomes have been achieved. This will normally be in the form of photocopies of certificates from awarding bodies.

Requests for registration and certification should be made to the SSC at the address above.

SSC Service level

The SSC undertakes to confirm the registration of candidates in writing within 4 weeks of receipt of the relevant Training Plan and Training Agreement. Each candidate will be issued with a unique registration number.

The SSC also undertakes to issue Certificates of Completion within 4 weeks of receipt of the appropriate evidence that a candidate has completed the outcomes as stated in the Training Plan.

Recruitment and selection

The recruitment and selection of Apprentices is primarily the responsibility of the employer. However, the following guidance is given:

- Employees may enter an apprenticeship from the age of 16. There is no upper age limit.
- The Apprenticeship is designed to attract high quality people to the industry. Achievement of academic qualifications is one way of assessing the suitability of applicants. However, it should be stressed that no persons should be deterred from applying for a Scottish apprenticeship because of a lack of formal educational qualifications. As well as traditional qualifications such as Standard Grades and Highers, employers should also be aware of newer vocational qualifications or vocational activity undertaken out with an academic institution, such as volunteering activity.
- The following factors may also influence the selection process:
 - performance during a formal interview process
 - references
 - relevant work experience
 - trial observation period.
- Employers should be aware of the nature, relevance and quality of foreign qualifications and make appropriate allowances concerning entry requirements.
- In order to promote and maintain the high status of the Apprenticeship within the industry all literature distributed for recruitment purposes should emphasise the high standards of achievement expected of the candidate.
- Employers may wish to contact the SSC for advice and guidance on recruitment and selection.

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Equal opportunities

Apprenticeships should ensure that there is equality of opportunity for all and any barriers (real or perceived) are addressed to support anyone seeking to enter employment to undertake the Modern Apprenticeship.

All apprenticeships supported by Skills Development Scotland must conform to any contractual requirements on equal opportunities. All employers of Apprentices should have an Equal Opportunities policy statement.

Health and Safety

All aspects of health and safety at work must be recognised within the delivery of this Apprenticeship Framework and all statutory requirements be adhered to. It is a key aspect of the induction period of the Apprenticeship that apprentices are fully informed both of the regulations and that they and their employers are bound by these regulations. Apprentices should be made aware of their rights and duties with regard to health and safety.

All Apprentices supported by Skills Development Scotland will be required to satisfy the adequacy of SDS's Health and Safety policy and systems.

Contracts

The following three contracts are essential to the successful outcome of the Apprenticeship programme:

1. Contract of employment signed by the employer and the Apprentice for employed apprentices.
2. SSC Training Agreement - this agreement outlines the basis of the modern apprenticeship, refers to the contract of employment and includes Health and Safety responsibilities. A sample SSC Training Agreement is set out in Appendix 3.
3. SSC Training Plan - this plan outlines the selected outcomes and the expected duration of the apprenticeship. In cases where funding is offered by SDS, the SDS Training Plan will be sufficient on condition that it contains all relevant information as set out in the Sample Training Plan at Appendix 3. Training Plans may be modified to reflect changing circumstances; however it is essential that the SSC is notified of any changes.

Employment status of Apprentices

It is important that the sector offers genuine employment and career prospects to those people it wishes to attract through Scottish Apprenticeships. Accordingly, **all apprentices must be employed with the exception of Foundation Apprenticeships which are delivered as part of the senior phase in schools.**

All Scottish Apprenticeships must have a demonstrable need to acquire **significant new knowledge and skills** to fulfil their job role. The apprenticeship framework selected for the apprentice must be the most appropriate learning programme generally available to that individual, providing such knowledge and skills.

Terms and conditions of employment

In order to compete with other sectors offering employed apprenticeships, attractive packages will need to be developed by employers in the sector. The terms and conditions of employment for individual Apprentices will be agreed between the employer and the apprentice and should form the contract of employment.

Training and development

Delivery

Training delivery can take many forms under the Apprenticeship system. Some organisations may become approved SVQ Assessment Centres; others may join a consortium or use peripatetic assessors. Some large employers will be able to complete all the training and development in-house, but most employers will find that some of the training and development will have to take place away from the normal workplace. In particular the underpinning knowledge requirements are often more suited to delivery by outside training providers which might include:

- private training organisations

- colleges / universities
- other employers

Such knowledge could be delivered through training courses or through open/distance learning packages.

The option of sharing training and assessment resources amongst a cluster of employers (or across the divisions of a larger employer) will be particularly appealing to those firms which do not have the resources to provide all of the training and development. Assessment can be provided by these bodies, but the assessors and the training centre must be approved by the awarding bodies for the SVQ and Work Place Core Skills where appropriate.

List of Training Providers

The following organisations have shown an interest in the delivering this Modern Apprenticeship.

Radwise

Nuvia

Information on training providers approved to deliver this Modern Apprenticeship is available from Cogent Skills.

Delivery of Training for the Modern Apprenticeship in Radiation Protection Monitoring

Work-based training

Delivery and assessment method

The apprentice's competence will be built-up in the workplace by undertaking the required elements of the competence qualification and the duties assigned to the role of a radiation protection monitor.

Assessments will be undertaken when the apprentice has demonstrated the required skill levels in the workplace. All assessments will be undertaken in accordance with the Cogent Assessment Strategy.

Skills required by training providers delivering the training

The training provider must meet the requirements of the Awarding Organisations to become a registered centre. All the training providers' staff must meet the requirements that are outlined in the Cogent Assessment Strategy.

Delivery of underpinning knowledge (if no formal off-the job requirement)

Underpinning knowledge will be developed on-the-job as well as off-the-job through delivery by the training provider. The Knowledge will be assessed through the completion of the SVQ incorporated in this Framework.

Off-the-job training

Details of off-the-job training

All underpinning knowledge required for this role is incorporated in the SVQ in this Framework, and will be assessed and awarded accordingly based on the current assessment strategy.

The specific structure of off-the-job training will vary from employer to employer, as will the respective elements to be delivered by the employer or an independent training provider, but it will always lead to competence as defined by the requirements of the SVQ. However, common features of the off-the-job training will include:

- Radiation physics, biological effects, dose limits and assessment, and their practical application in the workplace
- Detection and measurement of radiation, and the applicable equipment to be used
- Designation of controlled areas within the site and workplace
- Management of radiation source materials
- The nature of the role of Radiation Protection teams
- The nature and influence of radiation detection on the sector and regulation
- UK and international regulation of radiation protection, legislation, and their effect on strategy and operations
- The principles of managing risks to be as low as reasonably practicable (ALARP), and the associated documentation required in the UK nuclear sector
- Nuclear safety culture, health and safety training, and related required behaviours
- Emergency training applicable to the apprentice's particular workplace

While the principles of these are applicable across the sector, the practical experience of apprentices' employment will involve their developing a thorough understanding of their applications within their own organisations and sites, so the off-the-job learning has unique elements in each case.

Please Note:

Some employers may wish to have their apprentices learn the underpinning knowledge of the SVQ by using the Level 2 Certificate in Health Physics Monitoring in the Nuclear Industry.

This qualification is offered by GQA Qualifications, and is a popular option for some employers in Scotland and across the UK. This aspect of the Framework was a significant part of the consultation. The necessary technical knowledge to be competent in the role is embedded in the NOS for this area and therefore in the SVQ, so an apprentice can acquire the necessary knowledge through that route, whether gained on- or off-the-job. Some employers regularly use the qualification as a means to train their Radiation Protection Monitors in the necessary knowledge, while others do not. Employers who do choose it tend to do so as it is a well-established and well-recognised qualification, and enhances the individual's transferability especially through the different parts of the UK. Given the different approaches within the sector, employers expressed a strong desire that the qualification should be included as optional.

Whichever option is chosen, apprentices' technical knowledge will be sufficient to ensure occupational competence in the role.

Delivery and assessment method

Apprentices will be trained off-the-job by the approved training provider using a mix of classroom-based, online and practical delivery methods, tailored to suit the circumstances of individuals working on nuclear sites. Employers will have the flexibility to determine the most suitable approach with providers.

Employer mentors, managers, and internal trainer staff will provide off-the-job training in the practical applicability of general principles to the apprentice's specific work circumstances.

The competence elements of the role will be assessed by a portfolio of evidence demonstrating the apprentice's relevant experience. Underpinning knowledge will be assessed either through the portfolio or by written examination, relating to the relevant units of the SVQ, in accordance with the Cogent Assessment Strategy.

Achievement of the award will typically take two years.

Exemptions

None

The SSC training plan

The plan is required to identify:

- 1 The selected Framework outcomes, specifying whether or not separate certification of the Core Skills is being sought.
- 2 A summary of the Apprentices accredited prior learning
- 3 A timetable for achievement of the selected Framework outcomes, linked to regular progress reviews.

The Training Plan should take into account any relevant previous training and development, education or work experience. Not all Apprentices need have different plans, but many will vary. Moreover as reviews take place and circumstances change so the plan itself can be modified.

However any changes must:

- be subject to the quality provisions of Skills Development Scotland (if the apprenticeship is being financially supported)
- comply with the stipulations of this Framework
- meet the needs of the employer and apprentice.

A sample Training Plan is provided at Appendix 3 of this document, however, for those Apprentices funded by SDS area office it is sufficient to submit the Skills Development Scotland Training Plan on condition that it covers the same information required in the apprenticeship Training Plan.

Consultation Process

Cogent Skills has undertaken consultation on behalf of the nuclear sector employers by the following means:

- Desktop research (*February-June 2020*)
- Employer Working Group Meeting (*March 2020*)
- One to one virtual meetings with employers and training providers listed below (*March-May 2020*)
- Publication of the draft Framework on the Nuclear Skills Strategy Group website, with social media campaigns and newsletter email communication with the wider nuclear sector in Scotland (*June-July 2020*)
- One to one virtual meetings with working group members on amendments to the Framework following initial feedback (*August-September 2020*)

The consultation group was a carryover of the group that developed the SVQ qualification (Radiation Protection Monitoring, SCQF Level 5) in 2019. From the outset, the group therefore had a clear vision that the SVQ qualification would form part of a Modern Apprenticeship Framework. The consultations looked at the make-up and structure of the Framework and how it would meet the needs of the employers and how the employers could work with the training providers to deliver the requirements of the framework. Cogent Skills supported the employer group by asking structured questions around the demand for the Modern Apprenticeship, the detailed content of the SVQ and the NOS as they relate to the practical application of the role, and nature of the qualifications and learning required to achieve competence.

As this was a small group of employers, the steering group was also the working group.

After completing this consultation the following employers have indicated that they intend to recruit apprentices to this SCQF level 5 Modern Apprenticeship in Radiation Protection Monitoring:

Dounreay
Nuvia
Magnox
Babcock International
Radwise
Nuclear Decommissioning Authority

The following organisations have also been part of the consultations:

Nuclear Skills Strategy Group (*members below)
Nuclear Standards Advisory Group (*members below)
Skills Development Scotland
Scottish Qualifications Authority
GQA Qualifications (Awarding Organisation)
National Skills Academy for Nuclear
The Society for Radiological Protection

*Employer members of the Nuclear Skills Strategy Group and the Nuclear Standards Advisory Group who employ people in the nuclear sector in Scotland, in addition to those represented on the working group, are:

Ministry of Defence
Office for Nuclear Regulation
Royal Navy
EDF Energy
Doosan
Cavendish Nuclear
Jacobs

Please note the nuclear sector in Scotland consists of only a relatively small number of employer organisations. Therefore although the list above is shorter than might be expected in other sectors with larger numbers of employers, the consultation has been with the vast majority of the target population.

Trade Union consultation:

Scottish Trade Union Congress
Unite
GMB
Prospect

For consultation with individual Trade Unions, steering group employer members held consultation discussions with site representatives and full-time convenors of the unions listed above. The feedback from the Trade Unions was uniformly positive and they were pleased to see investment in the pipeline of young people into this occupational area.

For consultation with Scottish Trade Union Congress, one of the members of the Steering Group (a subject matter expert from Babcock Marine) was himself a former STUC President, and he consulted directly with STUC on the group's behalf. The main STUC contact was a Development Officer with Scottish Union learning. The feedback from STUC was that they supported the development of the Framework – they were particularly assured that the consultation had had sufficient local trade union involvement and that it had the potential to allow employers to address under-representation and improve workforce diversity.

Consultation regarding Core Skills

During the development and consultation with employers on the level of Core Skills suitable for this Framework, it was agreed to focus on SCQF Level 4. This represents the level expected of a school leaver, and as the Modern Apprenticeship will aim to recruit school leavers as a significant proportion of the cohort, this was felt by employers to provide the most appropriate fit. The outcome of the completed Modern Apprenticeship will be SCQF Level 5, but this relates primarily to the occupational competences of the individual, and employers are comfortable that the Level 4 Core Skills will be sufficient to underpin the acquisition of these competences.

Consultation regarding Underpinning knowledge

During the consultation, the Steering Group discussed extensively the position of the “Health Physics Monitoring in the Nuclear Industry” knowledge qualification, which is included in the Framework as an optional outcome. This is offered by GQA Qualifications, and is a popular option for some employers in Scotland and across the UK.

The necessary technical knowledge to be competent in the role is embedded in the NOS for this area and therefore in the SVQ, so an apprentice can acquire the necessary knowledge through that route, whether

gained on- or off-the-job. However, some employers regularly use the Health Physics Monitoring in the Nuclear Industry, as a means to train their Radiation Protection Monitors in the necessary knowledge, while others do not. Employers who do choose it tend to do so as it is a well-established and well-recognised qualification, and enhances the individual's transferability especially through the different parts of the UK. Given the different approaches within the sector, employers expressed a strong desire that the qualification should be included as optional.

Whichever option is chosen, apprentices' technical knowledge will be sufficient to ensure occupational competence in the role.

Career progression

Following completion of the Apprenticeship, candidates should be able to achieve positions in areas such as:

Following completion of this Modern Apprenticeship at SCQF level 5 there are several options open to the successful candidate who wishes to continue their development in order to progress their career. There are opportunities to continue to undertake further vocational training or academic qualifications. These may include (but are not exclusive to) the following:

- Higher National Certificate/ Diploma in Chemistry, Science or a related discipline
- Developing a career in coaching through Assessor and Verifier Awards
- Qualifications in a related area, including (but not limited to) Health & Safety, Training & Development, and Supervisory Management
- Membership of a professional institution at Technician level (Further information available at <https://srp-uk.org/>)

Successful completion of the Modern Apprenticeship could lead to one of the following job roles:

- Health Physics Monitor
- Radiation Protection Team Leader
- Radiation Protection Adviser
- Health Physicist

Some of these roles will be longer term and require further training and qualifications.

Further information on career pathways in the nuclear sector, including Radiation Protection, is available on the Nuclear Career Pathways websites at:

www.nssguk.com/nuclear-career-pathways

Appendices

APPENDIX 1

Stakeholder Responsibilities

Many organisations and individuals share the responsibility for ensuring that the Scottish Apprenticeship programme is implemented to the highest possible standard. They include:

- Awarding Bodies
- Employers
- Apprentices
- Apprenticeship Approval Group (AAG)
- Approved SSC/SSO
- Skills Development Scotland
- Training Providers

Role of the SSCs

SSC/SSO are responsible for developing Scottish Apprenticeship Frameworks and are required to work with employers in their sectors to ensure that all Frameworks meet the needs of employers in their sectors.

For details on your sector's SSC, follow the link to the Federation for Industry Sector Skills and Standards website <http://fiss.org/> or contact SDS for advice .

Role of Skills Development Scotland (SDS)

Apprenticeship frameworks are used by employers as part of their workforce development to train new employees and up-skill existing members of staff. They can be (and often are) used regardless of whether financial support is available from the delivery body who currently provides a 'contribution' towards the cost of delivery. However, only approved Apprenticeship Frameworks will be eligible for funding support from Skills Development Scotland who should be contacted to establish the availability and level of support for each Framework.

Further information is available from: <http://www.skillsdevelopmentscotland.co.uk/our-services/modern-apprenticeships.aspx>

SDS provides advice and guidance to individuals on the range of Scottish Apprenticeships and training providers available. Individuals are signposted to opportunity providers who offer training in the vocational areas of interest.

Responsibilities include:

- Supporting the Apprentice with ongoing Career Planning advice
- Signposting candidates to suitable vacancies
- Promoting the Scottish Apprenticeship route on the Skills Development Scotland website
- Facilitating recruitment events that bring together jobseekers and opportunity providers

Role of the Awarding Bodies

A significant proportion of Scottish Apprenticeships is based on the assessment of the apprentice against SVQs/ CBQs or SVQ/ CBQ units. These qualifications are accredited by SQA Accreditation and are offered by Awarding Bodies.

It is the responsibility of the Awarding Bodies to ensure that centres are approved, that assessors and verifiers are suitably qualified, trained and monitored, and that all of the assessment criteria of the SVQs/ CBQs and SVQ/CBQ units are fully met.

Role of the Training Provider

The role of the training provider is important to the success of the Scottish Apprenticeship Programme. A training provider can be a further education college, a private or voluntary training company or in some cases the employer themselves or employer partnerships.

Training Providers are responsible for:

- Confirming an appropriate programme for candidates
- Agreeing the training needs of the candidates
- Agreeing roles and responsibilities for on the job training
- Agreeing where off the job training will be required and defining roles and responsibilities for this with relevant parties
- Ensuring trainee/candidate has access to the best quality training opportunities available
- Ensuring that the Apprentices and employers fully understand the principles and processes of competence-based assessment
- Registering of candidates with the relevant SSC (and Skills Development Scotland if appropriate).
- Compiling and agreeing assessment schedules/assessment plans
- Judging performance evidence
- Completing assessment records
- Reviewing candidates progress at regular intervals
- Submitting records and evidence for moderation
- Advising the Apprentice who to approach for support, advice, encouragement and in case of complaint

Role of the Apprenticeship Approval Group (AAG)

AAG is an independent group drawn from key stakeholders involved in the management and delivery of the Apprenticeship programme in Scotland.

AAG is responsible for:

- Approval and re-approval of Scottish Apprenticeship Frameworks
- De-approval of Scottish Apprenticeship Frameworks
- Encouraging best practice across Apprenticeship Frameworks and sectors

Role of the Employer

Employers' responsibilities include:

- Paying employed Apprentices in accordance with company policy and in line with current legislation
- Agreeing roles and responsibilities for on the job training

- Agreeing where off the job training will be required and define roles and responsibilities for this with relevant parties
- Highlighting opportunities for the Apprentice to demonstrate competence
- Meeting with Trainers, Assessors, Verifiers and the Apprentices to review progress
- Witnessing candidate performance and verifying evidence
- Releasing Apprentices for college/off-the-job training in line with training plan
- Ensuring the experience, facilities and training necessary to achieve the outcomes of the training plan.
- Supporting and encouraging Apprentices and rewarding achievement
- Taking responsibility for the Health & Safety of Modern Apprentices.

Role of the Apprentice

Employed apprentices have the same responsibilities to their employer as any other employee. In addition, they have a range of commitments to their training programme.

Employed Apprentices' responsibilities include:

- Observing the company's terms and conditions of employment
- Agreeing a training/development plan with all parties involved
- Undertaking development in line with agreed training plan
- Attending meetings with trainers, assessors and verifiers as required
- Attending college/off-the-job training where required
- Providing evidence of competence
- Developing a collection of evidence (portfolio) and retain ownership of this throughout
- Behaving in a professional manner throughout

APPENDIX 2

Apprenticeship Centres (ACs)

Apprentices may only be registered through organisations approved by the SSC to deliver this Framework. Such approved organisations are called Apprenticeship Centres (ACs)

The AC may be the employer of the apprentice or a separate organisation such as a training provider, further education college, a private or voluntary training company or in some cases the employer themselves or employer partnerships.

In order to be approved, organisations must make a formal application to the SSC, seeking approval and establishing that the centre satisfies the following criteria:

Either

- 1 be approved by an appropriate Awarding Body as a centre for the assessment of the relevant SVQ/ CBQ (and Work Place Core Skills if these are being separately certificated)

or

- 2 be capable of demonstrating a contractual relationship with another approved centre for the assessment of those units for which the MAC does not have approval from an appropriate Awarding Body.

In addition

The SSC will maintain a database of ACs for the delivery of the apprenticeship within Scotland, which will be available to employers and others.

Organisations wishing to become ACs who have yet to obtain the necessary Awarding Body approval for assessment should first contact the Awarding Body direct.

In addition to the assessment of the Apprentice against the relevant standards set by the selected apprenticeship outcomes, the AC has responsibility for:

- Entering into a formal training agreement with the employer and Apprentice
- Registering Apprentices as candidates for the relevant SVQ/ CBQ (s) and other selected units with the appropriate Awarding Body
- Registering Modern Apprentices with the SSC
- Applying for the final 'Certificate of Completion' on behalf of Apprentices
- Informing the SSC of any material alterations to Apprentices' training plans or desired changes to the selected apprenticeship outcomes.

APPENDIX 3

APPRENTICESHIP SAMPLE TRAINING AGREEMENT

This Training Agreement is entered into by:

Name of Employer:	
Name of Apprentice:	
Name of Apprenticeship Centre:	

The **Employer's responsibilities (employed status apprentices only)** are to:

- 1 employ the apprentice subject to the employer's usual terms and conditions of employment;
- 2 provide the apprentice with the facilities, training and work place opportunities necessary to achieve the selected Framework outcomes specified in the apprentice's personal training plan;
- 3 pay the apprentice an agreed salary which reflects the obligations of the employer and the opportunities for the apprentice;
- 4 in the event of the employer becoming unable to retain the apprentice after completion of the apprenticeship, to use reasonable endeavours to secure employment elsewhere;
- 5 in the event of the apprenticeship being terminated prematurely by either the employer or apprentice for any reason other than dismissal for unsatisfactory performance or misconduct, to use reasonable endeavours to secure employment and continuation of this apprenticeship elsewhere;
- 6 operate a formal Health and Safety policy and undertake the necessary legal and contractual responsibilities for health and safety of the modern apprentice; and
- 7 operate an Equal Opportunities policy which meets all legal requirements.

The **Apprentice's responsibilities** are to:

- 1 work for the employer in accordance with the agreed terms and conditions of employment;
- 2 undertake training, attend courses if required, keep records, and take assessments to be determined by the employer and/or Apprenticeship Centre, and carry out such work as may be required in order to achieve the selected apprenticeship outcomes specified in the apprentice's personal training plan;
- 3 be diligent, punctual, behave in a responsible manner and in accordance with the requirements of Health and Safety legislation relating to the apprentice's responsibilities as an individual; and
- 4 promote at all times the employer's best interests.

The **Apprenticeship Centre's responsibilities** are to:

- 1 agree the content of the apprentice's personal training plan as confirming that the selected apprenticeship outcomes and training plans meet the criteria of this apprenticeship
- 2 contract with the employer to provide the training and assessment necessary to enable the apprentice to achieve the selected Framework outcomes specified in the apprentice's personal training plan; and
- 3 use its best endeavours to ensure that the employer provides the modern apprentice with the facilities, training and work place opportunities necessary to achieve the selected Framework outcomes specified in the apprentice's personal training plan.

This agreement to be signed by all parties:

Employer		Date:
Apprentice		Date:
Apprenticeship Centre		Date:

APPRENTICESHIP TRAINING PLAN

The Apprenticeship Centre

Name:
Address:
Telephone:
Contact:

The Apprentice

Full name:
Home address:
Work address:
Date of birth:

The Employer

Name:
Address:
Telephone:
Contact:

Skills Development Scotland office

Name:
Address:
Telephone:
Contact:

Apprenticeship selected outcomes

Mandatory outcomes

SVQ/ CBQ Level (please identify level) <i>(List mandatory and optional units)</i>		Tick units being undertaken	SCQF Level	SCQF Credit Points
SVQ/ CBQ level (please identify level) <i>(List mandatory and optional units)</i>				
Enhancements				

Work Place Core Skills <i>(Include details of the minimum level required)</i>		Tick units being undertaken	SCQF Level	SCQF Credit Points
1	Communication			
2	Working with others			
3	Numeracy			
4	Information and communication technology			
5	Problem Solving			

Optional outcomes

Additional units (if any) <i>These are optional and should reflect the individual training needs of the Apprentice</i>		Tick units being undertaken	SCQF Level	SCQF Credit Points
	(specify unit)			

Summary of Apprentice’s accredited prior learning:

If you require assistance in completing this form, please contact:

Ian Lockhart
Standards Manager
Cogent Skills
Unit 5 Mandarin Court Centre Park
Warrington
WA1 1GG
Telephone: 01925 515223
E-Mail: ian.lockhart@cogentskills.com