

Employer's Unit of Competence – **Project management with a focus on non-destructive testing**

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Overview

The role of project management is to ensure that new developments, maintenance tasks, inspections and any other packages of work that require collating disparate activities are well planned, coordinated, meet the necessary risk, compliance and financial control requirements and are delivered professionally and to schedule. Project management involves the responsibility to ensure effective decisions are made to keep projects on track. Apprentices must have a strong understanding of the development process and related activities and be able to reliably report on progression. Being able to communicate effectively with project sponsors, stakeholders and project staff is essential. In terms of non-destructive testing (NDT), projects are likely to be focused on small to large maintenance programmes that require the timely coordination and reporting of a number of engineering activities, including NDT inspections.

Note to employers: This module is not to develop the skill sets and competency to be an effective project manager, but rather to ensure that apprentices who have a sound understanding of project management techniques and processes will be able to apply this knowledge in their daily inspection activities, thereby contributing to the overall success of the inspection process within their working environment.

Project management rationale is based on the following project management lifecycle:

- Define the project and agree with stakeholders
- Establish and lead the project team
- Initiate the project
- Develop the project management plan and documentation
- Deliver the project
- Monitor and report project progress
- Close and review the project.

Performance Criteria

The apprentice must be able to:

- P1 As an employee:
 - Work independently
 - Demonstrate an ability to perform under pressure
 - Exhibit hardworking qualities
 - Work flexibly to suit business needs
 - Demonstrate reliability and trustworthiness
 - Display a presentable image and have a professional appearance
 - Always work patiently, diligently and diplomatically.
- P2 Work safely at all times, complying with health & safety and other relevant regulations and guidelines, including site-specific rules
- P3 Liaise with project sponsors, stakeholders, business analysts, developers, NDT inspectors and risk, compliance and inspection management to ensure deadlines are met
- P4 Be competent in the use of computers and associated proprietary planning software
- P5 Support and contribute to the project in a manner that supports the achievement of the project's objectives, values and vision
- P6 Be aware of project management skill sets, such as:
 - Oversee project delivery from start to finish

- Manage relationships with stakeholders to maintain their support and satisfy their needs
- Maintain consistent communication throughout the project's life cycle
- Work with the project team to manage changes to requirements effectively
- Ensure that the timescales specified are realistic
- Coordinate the allocation of resource to deliver projects
- Adhere to timescales and prioritise workload accordingly
- Understand the implications of each project and ensure that risks are monitored throughout
- Provide essential project reporting to key stakeholders and sponsors
- Monitor risks – ensure that risks are identified early and mitigations are put in place and implemented when needed.

Knowledge and Understanding

The apprentice needs to know about and understand:

- K1 Project management software and relevant planning tools
- K2 What it is like to work in a works office environment, based on experience
- K3 The duties and activities of a project manager
- K4 The project environment, gained by practical experience
- K5 How to extract information required from drawings and specifications
- K6 How to interpret results from engineering activities, including NDT
- K7 The need to demonstrate excellent attention to detail
- K8 The need to be highly organised
- K9 How to effectively manage own workload and that of the project team
- K10 How to be a good communicator, both spoken and written
- K11 How to be proactive, resourceful and able to use initiative to act early to ensure the project achieves the objectives
- K12 How to take responsibility and make tough decisions as demanded by project priorities
- K13 The importance of showing a willingness to learn and developing knowledge and skills.

Additional Information

Glossary

Contract – A contract is an agreement made between two parties that creates legally binding obligations between them. The contract sets out those obligations and the actions that can be taken if they are not met.

Control – Control comprises tracking performance against agreed plans and taking the corrective action required to meet defined objectives.

Context of the project – This phrase relates to the wider context of the project that the individual will need to know about, such as the project environment, the relationship to a wider programme of work and how the project fits with organisational strategies. The sector in which the project manager works (for example software development, construction, manufacturing or process industries) will have its own specific context and this phrase is intended to convey this meaning.

Life cycle – A life cycle defines the interrelated phases of a project and provides a structure for governing the progression of work.

Project – A unique, transient endeavour undertaken to achieve planned objectives.

Project schedule – The project schedule shows how project activities and milestones are planned over a period of time. It is often shown as a milestone chart, Gantt chart or other bar chart, or as a tabular listing of dates.

Resources – Resources are all those items required to undertake a project and may include people, finance, materials and information.

Stakeholders – Project stakeholders may be internal or external to the organisation and include sponsors, clients, customers and all relevant groups/individuals with a relationship to the project.

