

Assessment Plan

Mineral Processing Mobile and Static Plant Operator – Level 2

PHOTO REDACTED DUE TO THIRD PARTY RIGHTS OR OTHER LEGAL ISSUES

Assessment Plan:

Mineral Processing Mobile and Static Plant Operator – Level 2

1. Introduction and Overview

The Apprenticeship Standard has been designed to operate as the professional standard for people working as a mineral processing mobile or static plant operator. This Assessment Plan document compliments the Apprenticeship Standard. This Assessment Plan focusses on synoptic End Point Independent Assessment of the Apprentice.

The principles driving the design of the Assessment Plan are:

- **Apprenticeship Experience** by detailing the planning, delivery, monitoring and assessment process ensuring relevance to the job in terms of skills, knowledge and behaviours
- **Employer Participation** by outlining the elements of the off/on-the-job training and on-site assessments and End Point Assessment
- **Industry Recognition** by acknowledging the practical nature and technical knowledge requirements of the job roles
- **Guiding Principles** for valid and reliable delivery of the Assessment Plan
- **Added Value** to the Apprenticeship journey, both during and at the end of the Apprenticeship
- **Access and Affordability** by ensuring access is flexible to meet the requirements of all sizes of employers; manageable for all key partners and is cost effective

This **Assessment Plan** covers the following aspects:

- Training Plan
- On-Programme Assessment
- Assessment Gateway
- End Point Assessment
- Grading & Weighting System
- Internal & External Quality Assurance
- Role and Responsibilities of Key Partners

2. Training Plan

The Training Plan for this Apprenticeship should be agreed between the Employer and the Training Provider. The Employer will select the Training Provider from the SFA Register of Apprenticeship Training Providers (RoATPs).

The Training Plan content and coverage is something, which is entirely for the Employer to agree with the selected Training Provider; however, all Training Plans should:

- be based on the Apprenticeship Standard, knowledge, skills and behaviours
- consider the relevant occupational standards
- determine the appropriate pathway for the apprentice i.e. mobile plant or static plant
- take into account the preferred learning style of the apprentice to improve their learning agility
- include the mandatory relevant Vocational Qualification (VQ)
- detail the on-the-job and off-the job training
- detail the components of the on-programme assessment
- provide for monitoring and reviewing the progress of the apprentice
- provide for feedback opportunities at suitable intervals involving the Employer
- include guidance for further training and/or development activities and opportunities
- detail the role of the Employer and the Training Provider and their respective commitments
- ensure that sufficient regular check-points are built-in between the Employer and the Training Provider to ensure the apprentice is on-track to complete the learning and to agree how any issues will be addressed should these arise

3. On-Programme Assessment

The on-programme assessment of the apprentice will be the joint responsibility of the Employer and the Training Provider.

It is recommended that there is a large proportion of documented on-programme assessment to ensure that the mineral processing mobile or static plant operator has demonstrated the application of knowledge, skills and behaviours in the workplace under normal working conditions before being able to access the synoptic End Point Assessment.

The on-programme assessment comprises of:

- a. **Off the Job Training** as agreed between the Employer and the Training Provider including:
 - **Skills and Knowledge learning** to support the achievement of the apprenticeship to cover both practical skills in terms of operating the plant and/or machinery efficiently and safely including maintenance techniques; together with product and technical knowledge; and understanding and importance and priority given to safety, health and environmental aspects.
 - **Course Assessments** covering skills and knowledge related to the skills and knowledge learning. Course assessment will use both written and practical assessments depending on the most appropriate assessment method for the aspect/s to be assessed. Course assessments will require auditable evidence of competent performance and knowledge gained in the workplace which will also indicate the readiness of the apprentice to meet the End Point Assessments.
 - **English & Maths (mandatory)** for apprentices that have not yet achieved Level 2 English and mathematics; as a minimum apprentices will be required to achieve at least a Level 1 in English and maths but the apprentice will also be required to take the test for the Level 2 in English and maths.

b. On-the-Job Training including:

- **Skills Development** to improve practical capability under supervision to hone skills, techniques and gain the appropriate levels of experience as detailed in the Apprenticeship Standard.

c. On-Site Assessments including:

- **Direct observations** of the apprentice applying their knowledge, skills and behaviours carrying out a range work tasks and functions expected of the job role over the period of the apprenticeship programme
- **Questioning** related to the physical observation/s; knowledge requirements for the job role; based on contents of the logbook and the contents of the portfolio of evidence
- **Products of Work** involving the reviews and assessment related to outcomes of work produced by the apprentice
- **Supplementary Evidence** which may include:
 - **Witness Testimony** for activities where these have not been observed by the on-programme Assessor; particularly useful for capturing behaviours
 - **Accreditation of Prior Learning**
 - **Reviews of Logbook**

d. Mandatory Portfolio of Evidence which will contain:

- **Logbook** of work activities undertaken
- **Performance Review Records** completed by the on-programme Assessor
- Record of achieved **Competencies**
- Evidence of **Occupational Tasks** successfully completed
- Recorded **Professional discussions** between the apprentice and the on-programme Assessor to assess underpinning knowledge and understanding; particularly covering non-observed scenarios and behaviours
- **Personal Statement** covering skills, knowledge and behaviours as prescribed in the Apprenticeship Standard
- Evidence of any additional relevant **Continual Professional Development (CPD)**

4. Assessment Gateway

The pre-requisites for accessing the End Point Assessments are that the apprentice must have:

- demonstrated and agreed with the Employer, and possibly the Training Provider that they are ready

for End Point Assessment

- Completed a portfolio of evidence as well as CPD records
- completed a minimum period of 12 months of learning
- achieved the relevant Vocational Qualification as prescribed in the Apprenticeship Standard
- for apprentices that have not yet achieved Level 2 English and mathematics; as a minimum apprentices will be required to achieve at least a Level 1 in English and maths but the apprentice will also be required to take the test for the Level 2 in English and maths.

The employer must be satisfied that the apprentice has satisfied the above criteria and is ready for End Point Assessment.

5. End Point Assessment

The End Point Assessment is intended to be a synoptic assessment, taken at the end of the Apprenticeship, to assess that the apprentice has developed the knowledge, skills and behaviours identified by Employers for these particular occupations. Successful completion of the End Point Assessment means that the apprentice has met the requirement of the Apprenticeship Standard and is fully competent in their occupational role. The apprentice will then be issued with the Apprenticeship Certificate from the Issuing Authority.

The synoptic End Point Assessment has been designed, taking into account that the apprentice has achieved a vocational qualification and that this is a high risk practical standard which is underpinned by technical knowledge that will allow the mineral processing mobile or static plant apprentice to develop and demonstrate the necessary skills and knowledge across different types of activities.

The End Point Assessments can only be developed by assessment organisations who have been assessed as being suitable to conduct independent End Point Assessment for this Apprenticeship and they will use this Assessment Plan to develop the End Point Assessments. Employers are free to choose any Apprenticeship Assessment Organisation from the Skills Funding Agency (SFA) Register of Apprentice Assessment Organisations (RoAAO).

It is anticipated that the End Point Assessment could take place over two working days or shifts to fit in with the employers production commitments, the End Point Assessment will consist of 2 mandatory components and forms 100% of the assessment of achievement of the Apprenticeship; all of which must be passed:

a. Knowledge Assessment

Knowledge assessment consisting of 30 multi-choice questions picked at random from a question bank of 90 questions to assess the Knowledge, Skills and Behaviours as described in the Standard. The question banks will be set by the end point assessment organisation and the multiple choice question bank will be drawn up from the guidance in appendix 1.

The knowledge assessment will be conducted under invigilated conditions preferably at the workplace as part of the overall end point assessment and will be subject to time constraints of 60 minutes. The pass rate is 80% and 100% for a distinction.

b. Practical Observation and Professional Interview

▪ **Practical Observation**

Observation of practical skills, under normal working and operational conditions, which will be undertaken at the workplace of the apprentice covering:

- the full range of pre-operational functions
- performing operational tasks
- post-operational activities
- completion of relevant documentation
- routine maintenance inspections

The practical observation is to allow the Assessor to confirm that the apprentice can operate the plant to a competent level while performing their normal duties, the Assessor will then use observations made to form part of the professional interview questions where the Assessor can explore the apprentice's knowledge, skills and behaviours towards the tasks. It is **recommended** that the practical observation is recorded onto video format for use in the professional interview and auditing purposes. The duration of the practical observation will be no less than one hour and long enough for the apprentice to demonstrate they are competent to operate the plant equipment to the required level.

▪ **Professional Interview**

A professional interview between the Independent Apprenticeship Assessor and the apprentice using appendix 1 for guidance on what Knowledge, Skills and Behaviours the Assessor is looking to evidence from the apprentice and the notes made during the practical observation. The Personal Statement and any other evidence will be used as part of the Professional Interview. The interview will take place preferably at the workplace as part of the overall End Point Assessment process, the duration of the interview will be no less than one hour and no more than two hours.

The End Point Assessment will cover in total the requirements of the Apprenticeship Standard. It will showcase the knowledge, skills and behaviours of the apprentice. The End Point Assessment process will cater for:

- clarification of any questions in relation to the supporting evidence directly with the apprentice
- judgements to be confirmed relating to the quality of the work of the apprentice
- exploring with the apprentice the approach adopted whilst undertaking the apprenticeship journey
- making a full rounded assessment prior to awarding an overall apprenticeship grade

A pass apprentice is competent and capable of operating the plant equipment and fulfilling their responsibilities to the expectations specified in the standard. They are health and safety focussed, flexible and adapt to change in the work schedule. They are consistent in quality of the products, evidences a good understanding of their role and responsibility. They are able to respond to any questions clearly and accurately.

A distinction apprentice, in addition to meeting the pass criteria, they are confident, organised and proactive in their approach to work, they continually manage and use their time effectively and demonstrate a constant attention to detail in all aspects of their work. They are capable of adapting quickly to change in workload and customer requirements. Their approach goes beyond the basic, is

backed up with evidence of a full depth of understanding of their role, impact on the business and on the end user. They are proactive in their approach towards health and safety. They are consistently able to respond to any questions asked with full justification for any decisions made or advice given, further evidencing a full depth of understanding as well as consequences for actions.

6. Grading, re-takes and re-sits

There will be two levels of achievement for the Apprenticeship:

- Pass or
- Distinction

A Certificate of Achievement will be awarded by the Issuing Authority. However, if unsuccessful the apprentice and training organisation will receive feedback together with a remedial action plan to complete before re-taking the End Point Assessment again. Due to the health and safety critical nature of the role, only one re-take will be permitted. There may be occasions where a re-sit is appropriate but where no further training is required. A minimum period of one month additional training must be completed before the apprentice re-takes the EPA. The re-sit or re-take must be completed within three months of the initial EPA. Should the apprentice fail the re-sit or re-take then it will be down to employer's discretion on the next steps for this apprentice.

Grading

There are three grades available for the Apprenticeship:

Grading	Measure
Fail	Apprentice did not achieve a minimum of a pass in assessment a or b
Pass	Apprentice achieved a minimum of a pass in assessment a and b
Distinction	Apprentice achieved a distinction in assessment a and b

The grading will be based on how the evidence contributes to:

- What the apprentice has shown they **know** against the Apprenticeship Standard
- What the apprentice has shown they can **do** against the Apprenticeship Standard
- How the apprentice **has approached the tasks** and the **way they have completed designated tasks**

7. Delivering Consistent, Reliable Judgements and Internal Quality Assurance

A robust grading scheme must be used by all Apprenticeship Assessors in the assessment of each of the assessment components which must be based on valid and reliable judgements in all cases. Evidence of judgements must be retained as they will be subject to External Quality Assurance.

Whilst Apprenticeship Assessors make the final decision on the grade to be awarded; the Apprenticeship Assessment Organisation will moderate the End Point Assessments on a risk-based sampling system.

It will be expected that for new Assessors there will be a 100% check carried out, reducing to a minimum of 20% for experienced Apprenticeship Assessors where there has been consistency and comparability of

assessment decisions demonstrated over time.

The entire End Point Assessment is focused on the competence of the apprentice in the role, as evidenced by their ability to demonstrate the knowledge, skills and behaviours as set out in the Apprenticeship Standard. Each of the components of the End Point Assessment builds a cumulative picture of competence against the Apprenticeship Standard.

To ensure consistent and accurate judgements it is expected that the Apprenticeship Assessment Organisation will conduct and retain evidence of the following:

- marked knowledge assessments
- questions and outcomes of professional interview
- video footage of practical observation (where this is employed as it is not a mandatory requirement)
- reviews of personal statements by the apprentices
- results and data analysis for each component part of the End Point Assessment
- reports relating to the overall assessment and grading outcomes together with the rationale for the decision and final grade

Consistency and accuracy of assessments and judgements will be achieved through the Apprenticeship Assessment Organisation conducting the following:

- training for Apprenticeship Assessors and other administration and management staff members
- advanced planning of internal quality assurance activities to ensure these cover all assessment methods; all Apprenticeship Assessors; all component parts of the Apprenticeship and End Point Assessment elements
- monitoring and reviewing of all of the Apprenticeship Assessors including physical on-site monitoring
- interim and random sampling of Portfolios of Evidence and other evidence produced by the apprentice
- reviewing of results and data analysis to identify issues/areas of concern, conduct evaluation exercises to inform future areas for improvement
- standardisation activities and events for all Apprenticeship Assessors involved in the End Point Assessment and other administration and management staff involved in the delivery of the End Point Assessments, it is expected that these activities will take place once every quarter.
- reviewing CPD records to ensure Assessors maintain their knowledge and qualifications

8. Synoptic Assessment

The components of the End Point Assessment and the assessments used in this Apprenticeship all require the apprentice to demonstrate their knowledge, skills and behaviours in an integrated manner to meet the learning outcomes required to meet the Apprenticeship Standard. The End Point Assessment has been designed to sample a sufficiency of skills and knowledge across the training programme to form a cumulative and holistic picture of how well the apprentice meets, or exceeds, the Apprentice Standard.

9. Ensuring Independence/Impartiality

The approach taken for End Point Assessment demonstrates clear impartiality, with the inclusion of a third

party Apprenticeship Assessment Organisation, providing an independent view. Impartiality relies on no single party being involved in the employment, delivery, or training, of the apprentice that is in a position to make the sole decision on competence.

This does not include an Assessor or Assessment Organisation who may have been involved in the on-site assessment to achieve the vocational qualification element.

The Apprenticeship Assessor will be independent of the apprentice with no prior involvement with the apprentice or employed by the same organisation as the apprentice.

10. External Quality Assurance (EQA)

Ofqual will deliver the external quality assurance for the End Point Assessment for this Apprenticeship.

The requirements for entry onto the RoAAO together with Ofqual managing the external quality assurance of End Point Assessments within the same framework used for regulated qualification will allow Employers to choose between different Apprenticeship Assessment Organisation with confidence.

As there is the potential for multiple Apprenticeship Assessment Organisations to develop End Point Assessments from this Assessment Plan Employers need to be assured that there are sufficiently adequate independent External Quality Assurance arrangements in place to ensure, that overtime, standards can be properly maintained. The chosen EQA arrangements are intended to ensure consistency of quality and approach to assessment from all of the Apprenticeship Assessment Organisations developing and delivering End Point Assessments against this Assessment Plan. Where there is more than one Apprenticeship Assessment Organisation developing End Point Assessments based on one Assessment Plan it is encouraged that organisations work together on approaches to assessment to assist with comparability of End Point Assessment.

Any appeals related to End Point Assessment would expect to follow the Ofqual requirements for handling such events.

11. Affordability & Flexibility

When developing this Assessment Plan, Employers have consistently sought to keep the approach simple but effective by the use of:

- achievement of the Vocational Qualification to inform the timing of the End Point Assessment
- the apprentice's workplace for the practical component of the End Point Assessment

This has led to a well-defined, cost-effective and deliverable process that Employers will find easy to understand and apply to their own environment.

The initial indicative End Point Assessment costs are expected to be no more than 20% of the total external apprenticeship costs.

12. Key Partners Involved in the Delivery of the Assessment Plan

a. Employer

The Employer is responsible for:

- employing the apprentice
- ensuring that resources are available to maximise the apprentice's chances of success
- mentoring of the apprentice in the workplace and giving them the breadth and depth of knowledge and experience
- selecting the Training Provider from the SFA Approved Register of Approved Training Providers; however, Training Providers involved in the on-programme assessment would need to be competent in the mineral processing industries
- negotiating and agreeing fees
- determining the Training Plan
- selecting the Apprenticeship Assessment Organisation from the Skills Funding Agency Register of Apprentice Assessment Organisations (ROAAO)
- liaising with the Training Provider to agree when the apprentice is ready to undertake the synoptic End Point Assessment

b. Apprenticeship Assessment Organisation

The independent Apprenticeship Assessment Organisation is responsible for:

- designing, implementing and delivering the synoptic End Point Assessment
- selecting, recruiting and appointing of the independent Apprenticeship Assessor
- training and monitoring Apprenticeship Assessors
- ensuring standardisation of assessment and grading and the overall End Point Assessment process
- internal quality assurance to ensure Employer and public confidence in the outcomes of the assessment process and Apprenticeship
- reviewing and evaluating processes and component parts of the End Point Assessment to accommodate future improvements and enhancements

c. Independent Apprenticeship Assessor for End Point Assessment

The Independent Apprenticeship Assessor who is appointed by the Apprenticeship Assessment Organisation is responsible for:

- ensuring that they meet the requirements to be the Independent Assessor i.e:
 - occupationally competent in the area in which they will be assessing at, or above, Level 2 vocational qualification
 - work experience gained in the extractive, mining, mineral processing and related products sector
 - achieved an Assessor qualification or equivalent
 - evidence and maintenance of CPD related to the subject area; typically 35 hours, or more, per annum to show ongoing competence
 - declaring any conflicts of interest
 - current professional membership of a relevant professional body
- conducting End Point Assessment for an apprentice:

- knowledge
- practical observation and professional Interview
- determining the final apprentice grade to be awarded
- contributing and participating in standardisation activities and events
- confirming that the apprentice is indeed competent to work unsupervised in the role

13. Professional Body Recognition

Successful completion of this apprenticeship enables the learner to be eligible for registration with the Institute of Quarrying.

14. Likely volumes

140 starts in the first year of this apprenticeship being available to apprentices.

Appendix 1

The table below shows the knowledge, skills and behaviours listed in the standard and how each statement can be assessed as part of the Knowledge Test and/or the Professional Interview and Practical Observation. Some elements may be able to be assessed and evidenced in both assessment criteria leading to a more robust and consistent assessment process.

KNOWLEDGE	What is required	Knowledge assessment	Professional Interview and Practical Observation
Operations	• Demonstrate understanding of the operational and technical aspects of the fixed or mobile plant equipment.	✓	✓
	• Demonstrate understanding of all the hazards and risks of operating fixed or mobile plant equipment.	✓	✓
Health and safety	• Explain the importance of reporting and evaluation of all potential work hazards and site-specific hazards, including near-misses and dangerous occurrences.	✓	
	• Demonstrate the identification of risks of activities using approved assessment processes and encourage other employees to demonstrate safety-conscious behaviours.	✓	✓

	<ul style="list-style-type: none"> Demonstrate understanding of risk assessments, legislation, regulations, safe systems of work, and limits of responsibility. 	✓	✓
Sustainability	<ul style="list-style-type: none"> Explain how to evaluate the environmental impact of operating mobile and static equipment. Explain the importance of minimising fuel/waste and environmental impact of work activities. 		✓ ✓
Effective communications	<ul style="list-style-type: none"> Explain the reporting lines in both day-to-day and emergency situations. Explain how to communicate effectively and how to develop and maintain effective working relationships. 	✓	✓ ✓
Product knowledge	<ul style="list-style-type: none"> Demonstrate understanding of the products and product specifications required and identify changes or issues with quality or stock levels when they arise. 	✓	✓
SKILLS	What is required		
Operations	<ul style="list-style-type: none"> Be able to conduct pre-start and post operation checks of plant equipment. Be able to operate fixed or mobile plant equipment to the required company standards, safe systems of work and current regulations. Be able to operate fixed or mobile plant equipment in an effective and efficient manner. 	✓ ✓	✓ ✓ ✓
Sustainability	<ul style="list-style-type: none"> Be able to assess, identify and report any environmental impact of work undertaken. Minimise the demand for fossil fuels and natural resources wherever possible. 		✓ ✓
Maintenance techniques	<ul style="list-style-type: none"> Be able to conduct routine and reactive maintenance in accordance with company policy, procedures and manufacturer specifications. 	✓	✓

	<ul style="list-style-type: none"> Be able to use materials, fluids and lubricants required for everyday operation and maintenance in accordance with company policy, procedures, control of substances hazardous to health data (COSHH) and manufacturer specifications. 	✓	✓
Planning and organising Work	<ul style="list-style-type: none"> Be able to plan and complete required tasks in line with company key performance indicators and record progress against them. Be able to monitor stocks of materials and products required, and report issues with these in line with company policy and procedures. 	✓	✓
Products	<ul style="list-style-type: none"> Be able to produce a consistent high quality end product in line with customer and company specifications, be they aggregates, ready mixed concrete, mortar, asphalt, cement, precast or prestressed concrete products. Be able to monitor end product quality and stocks and report issues in line with company policy and procedures. 	✓	✓
BEHAVIOURS	What is required		
Professional judgement	<ul style="list-style-type: none"> Be able to work within own level of competence and know when to seek advice from colleagues. 	✓	✓
Commitment to code of ethics	<ul style="list-style-type: none"> Demonstrate working within the company rules, regulations and maintaining professional competence. 	✓	✓
Continuing professional development (CPD)	<ul style="list-style-type: none"> Be able to identify own development needs and take action to meet those needs. Be able to use own knowledge and expertise to help others. 		✓
Commitment to equality and diversity	<ul style="list-style-type: none"> Explain the importance of equality and diversity and manage/challenge others to meet the requirements of fairness at work. 		✓
Communicate Effectively	<ul style="list-style-type: none"> Explain the importance of communicating with operational 	✓	✓

	team effectively ensuring information is passed clearly and promptly.		
Accepting responsibility	<ul style="list-style-type: none"> Be able to take responsibility for own behaviours, actions and standards of work. 		✓
Health, safety & environment	<ul style="list-style-type: none"> Be able to comply with risk assessments, safe systems of work, company safety policy and procedures at all times. 	✓	✓
	<ul style="list-style-type: none"> Explain the importance of promoting a positive health, safety and environmental culture through situational awareness and by personal example, taking appropriate actions if others are acting unsafely. 	✓	✓