

## **GUIDANCE ON POTENTIAL AREAS FOR PROGRESSION THROUGH THE HEALTH, SAFETY & ENVIRONMENTAL MANAGEMENT IN THE EXTRACTIVE AND MINERALS PROCESSING INDUSTRIES [SHE] SUITE OF AWARDS**

### **INTRODUCTION**

NVQs for Quarry Managers have been available since 2002. These have been recognised as providing proof of competence as required by the Quarry Regulations 1999.

Inevitably with the expansion of time there are individuals who are gaining promotion within the industry who have already achieved an award at either Levels 3 or 4 and are now in, or about to be appointed, into a higher level position which carries with it greater responsibilities which will require additional proof of competence at a higher level.

This paper outlines the steps an individual can take to gain recognition for the evidence collected and assessed for the lower level award and use this towards the achievement of the higher level award.

In order to demonstrate areas where such principles may apply, an exercise using specific examples have been worked through to provide an illustration.

### **RECOGNITION PROCESS**

#### **Recognition of N/SVQ Units Achieved**

The N/SVQ framework already caters for automatic recognition of N/SVQ units which appear in other awards; or the same award but at different levels.

The table below lists all the units in the 'SHE' awards. This shows that, for example, had an individual achieved the Level 4 NVQ then automatic accreditation would be given at Level 5 for the same unit:

**Promote a health safety and environmental culture in extractive industries sites.**

It is also possible to gain recognition for units achieved whilst completing awards outside of the SHE awards. The SHE suite of awards include 5 units from the General Management N/SVQs, for example:

**Manage the performance of teams and individuals.**

### Units Across the SHE Suite of Awards

Unit title	Level 3	Level 4	Level 5
Contribute to a positive health safety and environmental culture in extractive industries sites	M		
Recommend and support improvements to health and safety in extractive industry sites	M		
Recommend and support environmental improvements in extractive industries sites	M		
Identify health and safety hazards environmental aspects and risks in extractive industries sites	M		
Create effective working relationships	M	A	
Lead the work of teams and individuals to achieve their objectives	M	A	
Promote a health safety and environmental culture in extractive industries sites		M	M
Contribute to effective health and safety systems in extractive industries sites		M	
Contribute to health and safety improvement in extractive industries sites		M	
Contribute to effective environmental systems in extractive industries sites		M	
Contribute to environmental improvement in extractive industries sites		M	
Investigate and evaluate health safety and environmental accidents and incidents in extractive industries sites		M	M
Conduct health and safety risk assessment in extractive industries sites		M	
Conduct environmental risk assessment in extractive industries sites		M	
Provide information to support decision making		M	
Implement Effective Health and Safety Systems in Extractive Industries sites			M
Implement improvement to Health and Safety in Extractive Industries sites			M
Implement effective environmental systems in extractive industries sites			M
Implement environmental improvement in Extractive Industries sites			M
Manage the process of health and safety risk assessment in extractive industries sites			M
Manage the process of environmental risk assessment in extractive industries sites			M
Manage the performance of teams and individuals		A	M
Use information to take critical decisions		A	M

M = Mandatory - Must be completed to achieve the NVQ

O = Optional - Some of these must be achieved to achieve the full NVQ

A = Additional - Units which can be added to meet individual needs

All units are qualifications in their own right and can be individually certificated

## Acknowledgement of Prior Evidence

### Similar Units

Across this particular suite of awards, there are units which address similar functions (or range of tasks) but from a different level and breadth of responsibility e.g. Level 4 Award includes a unit entitled:

**Contribute to effective health and safety systems in extractive industries sites.**

Whereas in the Level 5 award, a similar unit appears, entitled:

**Implement effective health and safety Systems in extractive industries sites.**

Therefore, whilst the Level 4 candidate may well have some evidence that may be re-presented for the Level 5 unit, there will be a need to bridge the gap between **contributing to** and **implementation**.

<b>TABLE OF SIMILAR UNITS</b>		
<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>
Contribute to a positive health safety and environmental culture in extractive industries sites	Promote a health safety and environmental culture in extractive industries sites	Promote a health safety and environmental culture in extractive industries sites
Recommend and support improvements to health and safety in extractive industry sites		
Recommend and support environmental improvements in extractive industries sites		
Identify health and safety hazards environmental aspects and risks in extractive industries sites		
Create effective working relationships		
Lead the work of teams and individuals to achieve their objectives	Manage the performance of teams and individuals	Manage the performance of teams and individuals
	Contribute to effective health and safety systems in extractive industries sites	Implement Effective Health and Safety Systems in Extractive Industries sites
	Contribute to health and safety improvement in extractive industries sites	Implement improvement to Health and Safety in Extractive Industries sites
	Contribute to effective environmental systems in extractive industries sites	Implement effective environmental systems in extractive industries sites
	Contribute to environmental improvement in extractive industries sites	Implement environmental improvement in Extractive Industries sites
	Investigate and evaluate health safety and environmental accidents and incidents in extractive industries sites	Investigate and evaluate health safety and environmental accidents and incidents in extractive industries sites
	Conduct health and safety risk assessment in extractive industries sites	Manage the process of health and safety risk assessment in extractive industries sites
	Conduct environmental risk assessment in extractive industries sites	Manage the process of environmental risk assessment in extractive industries sites
	Provide information to support decision making	Use information to take critical decisions

## Corresponding Knowledge Requirements

Again, across the SHE awards there are numerous examples where similar knowledge requirements recur. For example:

<b>Level 3: Identify health and safety hazards and environmental aspects and risks in extractive industries sites</b>	<b>Level 4: Conduct health and safety risk assessment in extractive industries sites</b>	<b>Level 5: Manage the process of health and safety risk assessment in extractive industries sites.</b>
<b>Element 1 knowledge includes</b>	<b>Element 1 knowledge includes</b>	<b>Element 1 knowledge includes</b>
definitions of hazard, risk, accident, danger, accident rate, frequency and severity.	definitions of hazard, significant hazard, risk, significant risk, accident, danger, accident rate, disease, incidence, frequency and severity.	definitions of hazard, significant hazard, risk, significant risk, accident, danger, accident rate, disease, incidence, frequency and severity.
workplace monitoring and hazard identification methods, e.g. formal and informal health and safety inspections, surveys and audits	workplace monitoring and hazard identification methods, e.g. formal and informal health and safety inspections, surveys, audits and examination of records.	workplace monitoring and hazard identification methods, e.g. formal and informal health and safety inspections, surveys, audits and examination of records.
basic procedures for carrying out health and safety risk assessment	effective procedures for carrying out health and safety risk assessment	effective procedures for carrying out health and safety risk assessment
key aspects of legislation applicable to the workplace under your control	the main points of legislation which relate to risk assessment and hazard identification	the main points of legislation which relate to risk assessment and hazard identification
requirement of health and safety document with regard to risk assessment	requirement of health and safety document with regard to risk assessment	requirement of health and safety document with regard to risk assessment
in-house information in relation to internal accidents, incidents, near misses, cases of occupational illnesses	in-house information in relation to internal accidents, incidents, near misses, cases of occupational illnesses	in-house information in relation to internal accidents, incidents, near misses, cases of occupational illnesses
basic knowledge of the main types of occupational health risk – chemical (toxic, corrosive, dermatitic), physical (noise, dust, temperature, light, vibration, repetitive strain) and ergonomic	basic knowledge of the main types of occupational health risk – chemical (toxic, corrosive, dermatitic), physical (noise, dust, temperature, light, vibration, repetitive strain) and ergonomic	basic knowledge of the main types of occupational health risk – chemical (toxic, corrosive, dermatitic), physical (noise, dust, temperature, light, vibration, repetitive strain) and ergonomic
how the incorporation of commonly used protective devices and correct plant maintenance contribute to reduction of risks	how the incorporation of commonly used protective devices and correct plant maintenance contribute to improved control of health and safety	how the incorporation of commonly used protective devices and correct plant maintenance contribute to improved control of health and safety
health and safety induction schemes	health and safety induction schemes	health and safety induction schemes
the organisations record keeping requirements	organisational requirements in respect of record keeping	organisational and statutory requirements in respect of record keeping

....continued		
<b>Level 3: Identify health and safety hazards and environmental aspects and risks in extractive industries sites</b>	<b>Level 4: Conduct health and safety risk assessment in extractive industries sites</b>	<b>Level 5: Manage the process of health and safety risk assessment in extractive industries sites</b>
<b>Element 1 knowledge includes</b>	<b>Element 1 knowledge includes</b>	<b>Element 1 knowledge includes</b>
	use of health and safety accident/incident reports and occupational health information from external sources such as government departments, regulatory bodies, trade and professional associations and how such information can be used as an aid in identifying possible hazards	use of health and safety accident/incident reports and occupational health information from external sources such as government departments, regulatory bodies, trade and professional associations and how such information can be used as an aid in identifying possible hazards
	how accidents and incidents can be avoided by design methods such that hazards are engineered out	how accidents and incidents can be avoided by design methods such that hazards are engineered out
	methods for maintaining safe places of work, means of access and egress, prevention of slips, trips and falls from elevated ladders and walkways, danger from falling objects, safe use of ladders	methods for maintaining safe places of work, means of access and egress, prevention of slips, trips and falls from elevated ladders and walkways, danger from falling objects, safe use of ladders
the benefits of participation of persons at work		
safe working practices for yourself and those working under your direction and control to include all systems, procedures, equipment and materials in use		
your scope and responsibility for dealing with hazards		
your own limitations relating to hazards and risks and an awareness of the structure for reporting		
communication, involvement and motivation	communication, involvement and motivation	communication, involvement and motivation
interview and questioning techniques	interview and questioning techniques	interview and questioning techniques
	safe use of mechanical handling equipment in relation to legislation currently in force	safe use of mechanical handling equipment in relation to legislation currently in force
	nature and causes of injuries associated with manual handling	nature and causes of injuries associated with manual handling

....continued		
<b>Level 3: Identify health and safety hazards and environmental aspects and risks in extractive industries sites</b>	<b>Level 4: Conduct health and safety risk assessment in extractive industries sites</b>	<b>Level 5: Manage the process of health and safety risk assessment in extractive industries sites</b>
<b>Element 1 knowledge includes</b>	<b>Element 1 knowledge includes</b>	<b>Element 1 knowledge includes</b>
	response to the imposition of statutory requirements, works rules and commercial factors which may affect human reliability	response to the imposition of statutory requirements, works rules and commercial factors which may affect human reliability
	workplace practices and procedures	workplace practices and procedures
	health and safety efficiency in terms of the processes under your control and also industry best practice	
	benefits of improved health and safety performance	benefits of improved health and safety performance
		the nature and use of various types of exposure limits, MEL's, OEL's and logarithmic scales
		the problems raised by different people's inability to rank hazards and risks and differing attitudes towards long term health and safety risks
		awareness of the skills required for successful public and community relations
		health and safety efficiency in terms of the processes under your control and also industry best practice
		analysis of information and interpretation of patterns and trends

This serves to illustrate the degree of similarity across only one set of equivalent elements. There are many more examples if the awards are taken as a whole. However, if only it was that simple:

**Health Warning**

Whilst the knowledge statements are the same, the degree of knowledge and understanding needs to equate to the corresponding level of responsibility and level of award.

It should also be noted that in many cases the knowledge statements are necessarily repeated in different units across the same award as Unit Credit certification must be made available to candidates.

## Comparable Performance Criteria

Taken from similar units from across the suite of awards:

<b>LEVEL 3</b>	<b>LEVEL 4</b>	<b>LEVEL 5</b>
<p><b>Unit 4</b> Identify health and safety Hazards environmental aspects and risks in extractive industries sites</p>	<p><b>Unit 7</b> Conduct health and safety risk assessment in extractive industries sites</p>	<p><b>Unit 7</b> Manage the process of health and safety risk assessment in extractive industries sites</p>
<p><b>Element 4.1</b> Identify health and safety hazards and reduce risks</p>	<p><b>Element 7.1</b> Identify health and safety hazards</p>	<p><b>Element 7.1</b> Identify health and safety hazards</p>
<p>a) <b>hazards</b> in the workplace and their existing controls are identified</p> <p>b) <b>people who are at risk</b> from <b>hazards</b> are identified</p> <p>c) you assess the level of risk arising from the <b>hazard</b></p> <p>d) advice is sought from managers or specialists in risk assessment when appropriate</p> <p>e) you report <b>hazards</b> which constitute a high risk immediately to the responsible person(s)</p> <p>f) you deal with <b>hazards</b> which constitute a low risk in accordance with organisational and operational procedures</p> <p>g) you encourage suggestions from your subordinates for reducing risks to health and safety</p> <p>h) you give suggestions to control or reduce risks to health and safety to the responsible person(s)</p> <p>i) you make recommendations for training where necessary</p> <p>j) clear records are kept which conform to company requirements</p>	<p>a) you confirm the scope and method of identification of the <b>hazard</b> is appropriate to the <b>workplace</b></p> <p>b) all information relative to the risk assessment is up to date and from recognised and reliable sources</p> <p>c) <b>hazards</b> in the <b>workplace</b> and their existing controls are identified</p> <p>d) <b>people who are at risk</b> from significant <b>hazards</b> are identified</p> <p>e) advice is sought from specialists in risk assessment when appropriate</p> <p>f) you report the results of the process to appropriate people</p> <p>g) clear records are kept which conform to relevant statutory and company requirements</p>	<p>a) you clearly define the scope and method of identification of the <b>hazard</b></p> <p>b) all information relative to the risk assessment is up to date and from recognised and reliable sources</p> <p>c) <b>hazards</b> in the <b>workplace</b> and their existing controls are identified</p> <p>d) <b>people who are at risk</b> from significant <b>hazards</b> are identified</p> <p>e) advice is sought from specialists in risk assessment when appropriate</p> <p>f) you report the results of the process to appropriate people</p> <p>g) clear records are kept which conform to relevant statutory and company requirements</p>

### Corresponding Evidence Requirements

Again, across the SHE awards there are numerous examples where similar evidence requirements recur. For example:

<b>Level 3:</b> <b>Recommend &amp; support improvements to health and safety in extractive industries sites</b>	<b>Level 4:</b> <b>Contribute to health &amp; safety improvement to health and safety in extractive industries sites</b>	<b>Level 5:</b> <b>Implement improvement to health &amp; safety in extractive industries sites</b>
Element 1 <b>Identify health and safety improvements</b>	Element 1 <b>Identify and recommend opportunities for improvement to health and safety activity</b>	Element 1 <b>Identify and evaluate the opportunities for improvement to health and safety activity</b>
<p>You must provide performance evidence that you have identified at least <b>five</b> of the following health and safety <b>improvements</b></p> <ol style="list-style-type: none"> <li>1. site security which may include some of the following                             <ul style="list-style-type: none"> <li>• entry to the site</li> <li>• security of perimeter fencing and warning signs</li> <li>• delineation of public rights of way</li> <li>• fixing of clearly understood signs to warn of potential dangers/hazards</li> <li>• lifebelt available if appropriate</li> <li>• lone worker safety</li> </ul> </li> <li>2. to vehicular movements (e.g. routing, reducing the incidence of reversing operations, improvement in visibility for drivers)</li> <li>3. to security arrangements of vehicles</li> <li>4. to electrical equipment</li> <li>5. to loading and unloading operations</li> <li>6. to personal protective equipment</li> <li>7. elimination of, or reduction of manual handling</li> <li>8. to improvement of handling and storage of harmful substances</li> </ol>	<p>You must provide performance evidence that you have identified and evaluated at least <b>six</b> of the following health and safety <b>improvements</b></p> <ol style="list-style-type: none"> <li>1. site security which may include:                             <ul style="list-style-type: none"> <li>• entry to the site</li> <li>• security of perimeter fencing and warning signs</li> <li>• delineation of public rights of way</li> <li>• fixing of clearly understood signs to warn of potential dangers/hazards</li> <li>• lifebelt available if appropriate</li> <li>• lone worker safety</li> </ul> </li> <li>2. to vehicular movements (e.g. routing, reducing the incidence of reversing operations, improvement in visibility for drivers)</li> <li>3. for assessment of drivers competence</li> <li>4. to security arrangements of vehicles</li> <li>5. provision of site map</li> <li>6. to loading and unloading operations</li> <li>7. to reduce risks from overhead/underground services</li> <li>8. to personal protective equipment</li> </ol>	<p>You must provide performance evidence that you have identified and evaluated at least <b>eight</b> of the following <b>health and safety improvement(s)</b></p> <ol style="list-style-type: none"> <li>1. site security which may include:                             <ul style="list-style-type: none"> <li>• entry to the site</li> <li>• security of perimeter fencing and warning signs</li> <li>• delineation of public rights of way</li> <li>• fixing of clearly understood signs to warn of potential dangers/hazards</li> <li>• lifebelt available if appropriate</li> <li>• lone worker safety</li> </ul> </li> <li>2. to vehicular movement (e.g. routing, and reducing the incidence of reversing operations)</li> <li>3. to visibility for reversing vehicles</li> <li>4. for assessment of drivers competence</li> <li>5. to security arrangements of vehicles</li> <li>6. provision of site map</li> <li>7. to loading and unloading operations</li> <li>8. to reduce risks from overhead/underground services</li> </ol>

Potential Areas for Progression through 'SHE' Suite of Awards

<p>9. safety of contractors working on the site</p> <p>10. in noise control measures/equipment</p> <p>11. in emissions to air control measures/equipment</p> <p>12. in safety of machinery which may include</p> <ul style="list-style-type: none"> <li>• methods of operation</li> <li>• safe systems of work</li> <li>• guarding/electrical interlock systems</li> <li>• access and egress</li> </ul> <p>13. to access and egress of buildings</p>	<p>9. elimination of, or reduction of manual handling</p> <p>10. to elimination of harmful substances</p> <p>11. to improvement of handling and storage of harmful substances</p> <p>12. in noise control measures/equipment</p> <p>13. in dust control/emissions to air measures/equipment</p> <p>14. in safety of machinery which may include</p> <ul style="list-style-type: none"> <li>• methods of operation</li> <li>• safe systems of work</li> <li>• guarding/electrical interlock systems</li> <li>• access and egress</li> </ul> <p>15. to access and egress of buildings</p>	<p>9. to personal protective equipment</p> <p>10. elimination of, or reduction of manual handling</p> <p>11. to elimination of harmful substances</p> <p>12. to improvement of handling and storage of harmful substances</p> <p>13. in noise control measures/equipment</p> <p>14. in dust control/emissions to air measures/equipment</p> <p>15. to access and egress of buildings</p> <p>16. in safety of machinery which may include:</p> <ul style="list-style-type: none"> <li>• methods of operation</li> <li>• safe systems of work</li> <li>• guarding/electrical interlock systems</li> <li>• access and egress</li> </ul> <p>17. to fire-fighting effectiveness and evacuation which may include:</p> <ul style="list-style-type: none"> <li>• fire-fighting equipment</li> <li>• alarms (installation, servicing, test)</li> <li>• drilling and exercises (with or without local fire service)</li> </ul> <p>18. improvements to equipment/methods for working at heights</p> <p>19. in availability of occupational health testing which may include:</p> <ul style="list-style-type: none"> <li>• sight</li> <li>• hearing for workers exposed to significant noise levels</li> <li>• lung function and X-ray for workers who are exposed to significant dust levels</li> </ul>
<p>You must provide performance evidence that you use at least <b>three</b> of the following types of relevant <b>information</b></p> <p>1. risk assessment results</p> <p>2. accident/incident investigation findings</p>	<p>You must provide performance evidence that you access at least <b>four</b> of the following types of relevant <b>information</b></p> <p>1. risk assessment results</p> <p>2. accident/incident investigation findings</p>	<p>You must provide performance evidence that you access at least <b>six</b> of the following types of relevant <b>information</b></p> <p>1. risk assessment results</p> <p>2. accident/incident investigation findings</p>

Potential Areas for Progression through 'SHE' Suite of Awards

<ol style="list-style-type: none"> <li>3. site safety audits</li> <li>4. health and safety committee recommendations</li> <li>5. internal company reports</li> <li>6. reports from regulatory bodies and trade associations</li> <li>7. external publications relating to health and safety practice and legislation</li> </ol>	<ol style="list-style-type: none"> <li>3. site audits</li> <li>4. health and safety committee recommendations</li> <li>5. internal company reports</li> <li>6. reports from regulatory bodies and trade associations</li> </ol> <p>external publications relating to health and safety practice and legislation</p>	<ol style="list-style-type: none"> <li>3. site audits</li> <li>4. health and safety committee recommendations</li> <li>5. internal company reports</li> <li>6. reports from regulatory bodies and trade associations</li> <li>7. external publications relating to health and safety practice and legislation</li> </ol>
<p>You must provide performance evidence that you involve at least <b>three</b> of the following types of <b>appropriate people</b></p> <ol style="list-style-type: none"> <li>1. higher level manager</li> <li>2. colleague working at the same level as you</li> <li>3. health and safety specialist</li> <li>4. health and safety committee member</li> <li>5. safety representative</li> <li>6. other employees</li> <li>7. contractors</li> </ol>	<p>You must provide performance evidence that you involve at least <b>four</b> of the following types of <b>appropriate people</b></p> <ol style="list-style-type: none"> <li>1. higher level manager</li> <li>2. colleague working at the same level as you</li> <li>3. health and safety specialist</li> <li>4. health and safety committee</li> <li>5. safety representative</li> <li>6. other employees</li> <li>7. contractors</li> </ol>	<p>You must provide performance evidence that you involve at least <b>four</b> of the following types of <b>appropriate people</b></p> <ol style="list-style-type: none"> <li>1. higher level manager</li> <li>2. colleague working at the same level as you</li> <li>3. health and safety specialist</li> <li>4. health and safety committee</li> <li>5. safety representative</li> <li>6. supervisor</li> <li>7. other employees</li> <li>8. contractors</li> </ol>
<p>You must provide performance evidence to show that you have provided information and encouraged suggestions for improving health and safety for at least <b>three</b> for the following aspects of the <b>working environment</b></p> <ol style="list-style-type: none"> <li>1. working practices</li> <li>2. changes to procedures and systems</li> <li>3. workplace layout</li> <li>4. use of machinery and equipment</li> <li>5. use of substances</li> </ol>	<p>You must provide performance evidence that you have implemented improvements for at least <b>two</b> of the following operational areas of the <b>workplace</b></p> <ol style="list-style-type: none"> <li>1. overall site</li> <li>2. mineral extraction</li> <li>3. site transport</li> <li>4. delivery/despatch transport</li> <li>5. drilling and blasting</li> <li>6. processing</li> <li>7. storage</li> <li>8. restoration</li> <li>9. waste disposal/recycling</li> </ol>	<p>You must provide performance evidence that you have implemented improvements for at least <b>four</b> of the following operational areas of the <b>workplace</b></p> <ol style="list-style-type: none"> <li>1. overall site</li> <li>2. mineral extraction</li> <li>3. site transport</li> <li>4. delivery/despatch transport</li> <li>5. drilling and blasting</li> <li>6. processing</li> <li>7. storage</li> <li>8. restoration</li> <li>9. waste disposal/recycling</li> </ol>
<p><i>If you are a candidate seeking this award within a quarry environment then you must provide performance evidence to relation to:</i></p> <ol style="list-style-type: none"> <li>a) the use of information from geotechnical appraisals/ assessments</li> <li>b) support for the implementation and evaluation of the quarry design.</li> </ol>		

This serves to illustrate the degree of similarity across only one set of equivalent elements. There are many more examples if the awards are taken as a whole.

**Health Warning**

The suite of awards contains different levels to correspond with the varying scales of responsibility which is indicated by the degree of involvement in any given activity e.g.

<b>Level 3:</b> Recommend & <b>support</b> improvements to health and safety in extractive industries sites	<b>Level 4:</b> <b>Contribute</b> to health & safety improvement to health and safety in extractive industries sites	<b>Level 5:</b> <b>Implement</b> improvement to health & safety in extractive industries sites
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Additional Points for Consideration:

- In most situations the process will begin at the induction of the individual candidate to the higher award. The candidate and assessor should discuss whether the candidate has any evidence that may be considered, which the candidate should then present.
- The candidate may have evidence from other awards which may also be considered and also CPD.
- In all cases, it will be the responsibility of the Assessor to decide on the value of the evidence and justify its inclusion, applying the principles of currency, validity and sufficiency, in the appropriate context.

This very limited exercise reveals that there is evidence to suggest that a candidate progressing from a lower to a higher level SHE award is likely to have evidence already available for assessment against the higher level award.

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