



Quarry Health and Safety Management System

Guide to developing the system



Camborne School of Mines

• working for the quarrying industry

quarrysafe.co.uk

This document contains a simplified route map to assessing your quarry operation and developing an effective Health and Safety Management System, including complying with UK law as it affects quarries

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Visible Management Commitment

Continuous Improvement

Good Communication

Employee Involvement

Competence

Good Health Management



Development Area	Quick Notes	More Help at.....
<p>Project Manager</p>	<ul style="list-style-type: none"> ● Health and Safety management is no longer something that can be tacked around the edges. <i>Somebody should be given clear responsibility to manage this improvement project, with timescales to report progress.</i> ● The project manager needs to be enthusiastic, organised, a good communicator, willing to learn and with a clear line of communication to senior management. ● If the project manager is not intended to carry longer-term specific H&S duties, someone must be in place to carry it forward either as in-house H&S officer or in-house liaison to bring in outside expertise. 	
<p>Operator</p>	<ul style="list-style-type: none"> ● The 'person entitled to work the quarry' must ensure that 'the operator' is suitable and has sufficient resources for safe operation and must make a written agreement signed and held by both parties. ● The 'operator' is responsible for safe design, construction, equipment, commissioning, operation and maintenance ● 'The operator' may be a company. Legal advice may be appropriate in putting this arrangement in place. 	<p><i>quarrysafe.co.uk</i> Specification for the Quarry Health & Safety Management System (QHSMS) pp18-19</p> <p>Quarries Regs Regs 5, 6 ACOP pp10-13</p>

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<p style="text-align: center;">Policy</p>	<ul style="list-style-type: none"> ● Policy is not a document put together by a consultant but is a written statement of <i>what you do</i>. There must be signed evidence that the management has worked on it and that it will review it. ● Policy should include certain things – see QHSMS. ● Everyone on the site must understand the policy. 	<p><i>quarrysafe.co.uk</i> Specification for the Quarry Health & Safety Management System pp 6-8 and Audit Proforma</p> <p>Health & Safety at Work Act</p>
<p style="text-align: center;">Responsibilities</p>	<ul style="list-style-type: none"> ● Responsibilities must be defined for all jobs. H&S responsibilities must be included in letters of appointment for key posts and in job descriptions for all. ● A 'competent individual' must be formally appointed and present at all time the quarry is in operation. Any substitutes must also be formally appointed. ● Somebody must take particular responsibility for ensuring that H&S law is understood and enacted. ● Explosives duties must be defined. ● Geotechnics duties must be defined. ● Methods for co-operation on H&S where two employers share premises must be defined. ● Employers have special responsibilities for young persons, temporary workers and new or expectant mothers. ● An up-to-date management structure must be available. 	<p><i>quarrysafe.co.uk</i> Specification for the Quarry Health & Safety Management System pp 17-21 and Audit Proforma</p> <p>Quarries Regs Reg 8 ACOP pp 17-19</p> <p><i>quarrysafe.co.uk</i> Audit check list 2 Blasting Audit check list 4 Geotechnics</p> <p>Management of Health and Safety at Work Regs Regs 11,12, 14,15,16</p>

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<p style="text-align: center;">Control</p>	<ul style="list-style-type: none"> ● The management of the quarry must be able to show evidence of effective control, particularly of any matters that might affect H&S. ● H&S management must be subject to continuous improvement, best achieved by setting and reviewing objectives with timescales. ● At the very least, well-kept minutes of regular management meetings should have a section on H&S with owned actions. ● For day to day issues, an action log with owners and dates provides control. ● The health and safety management process includes inputs such as communication and analysis of outputs such as types and trends of incident and injury and action to address them. 	<p>Quarries Regs Reg 6 ACOP pp 11-13</p> <p><i>quarrysafe.co.uk</i> Specification for the Quarry Health & Safety Management System pp 10-12 and Audit Proforma</p> <p><i>quarrysafe.co.uk</i> Specification for the Quarry Health & Safety Management System pp 34-37</p>
<p style="text-align: center;">Communication</p>	<ul style="list-style-type: none"> ● Anyone entering the quarry should be quickly made aware of the priority given to H&S – signs, posters, hand-outs, notice boards can be used creatively. ● Comprehensive and relevant information on risks, preventive and protective measures, whom to approach for information and how to respond to emergency situations must be provided to all employees. ● Any changes to ways of working must be communicated effectively to employees. 	<p><i>quarrysafe.co.uk</i> Specification for the Quarry Health & Safety Management System pp 26-27</p> <p>Management of Health and Safety at Work Regs Reg 10</p>

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<p>Communication continued</p>	<ul style="list-style-type: none"> ● Toolbox talks or similar interactive sessions, with signed attendance, are strongly recommended as a means of two-way communication of H&S advice and issues. ● Managers and supervisors should plan how they will give visible support to H&S. ● Training in presentation skills may be useful. ● A user-friendly procedure for hazard and near-miss reporting for all employees can provide very useful information. 	<p><i>safequarry.com</i> This QPA website provides toolbox talk material and other useful data</p> <p>The EPIC training company can provide toolbox talk material <i>epicltd.com</i></p> <p><i>quarrysafe.co.uk</i> Reporting of and learning from Hazards, Unsafe Behaviour and Near Miss Incidents</p>
<p>Safety Risks</p>	<ul style="list-style-type: none"> ● Places and jobs on the site must be identified and the potential hazards to safety that can be foreseen listed. ● 'Suitable and sufficient' assessment of the risks must be carried out. For a potentially dangerous site such as a quarry, this means an in-depth exercise that generalised consultancy packages often do not match. ● Risk assessment is not a paper exercise by management. The people who do the work should be involved. ● Risk assessments should be regularly reviewed. 	<p><i>quarrysafe.co.uk</i> Risk Assessment Guidance</p> <p>Management of Health and Safety at Work Regs Reg 3</p> <p>Provision and Use of Work Equipment Regs</p> <p>Lifting Operations and Lifting Equipment Regs</p> <p>Dangerous Substance and Explosive Atmospheres Regs</p> <p>Quarries Regs</p>
<p>Health Risks</p>	<ul style="list-style-type: none"> ● Places, jobs and substances in use or created (such as dusts or fumes) must be identified and the potential hazards to health listed. 	<p>Management of Health and Safety at Work Regs Reg 3</p> <p>Noise at Work Regs</p>

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<p>Health Risks continued</p>	<ul style="list-style-type: none"> ● Specialist monitoring, including personal monitoring of dust and noise for job-related 8 hour time-weighted average, is needed. ● Dusts, noise, vibration and any fumes must be controlled to meet Workplace Exposure Limits (WEL). ● Offices must be reviewed for display screen equipment standards. ● All workplace facilities must meet specified requirements. 	<p>Control of Substances Hazardous to Health Regs together with current EH40</p> <p>Control of Vibration at Work Regs</p> <p>Health & Safety (Display Screen Equipment) Regs</p> <p>Workplace (Health, Safety and Welfare) Regs</p> <p><i>hse.gov.uk/aboutus/meetings/qnjac/qnjac-ohg.pdf</i> Occupational Health Guidance in the Quarrying Industry</p> <p><i>quarrysafe.co.uk</i> Audit check list 5 and Risk Assessment Guidance</p>
<p>Safe Places</p>	<ul style="list-style-type: none"> ● The Quarries Regs specify risk control measures for several aspects of the quarry, buildings, vehicles and plant. ● This includes the need for competence to inspect faces prior to starting work and various other regular inspections of fixed and mobile plant, guards, electrical installations, buildings, as well as other specific requirements. ● Any other hazards, including for temporary activities, must be assessed and controlled for risk (and considered for 'permit to work'). ● Noise risk zones must be mapped and clearly signed. 	<p><i>quarrysafe.co.uk</i> Risk Assessment Guidance and Audit check list 6</p> <p>Quarries Regs Regs 12-16 ACOP pp22-30</p> <p>Management of Health and Safety at Work Regs Reg 3</p> <p>Noise at Work Regs</p> <p>Electricity at Work Regs</p>

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<p>Safe Places continued</p>	<ul style="list-style-type: none"> Specialist advice on certain aspects such as asphalt plants and electrical safety is recommended. 	
<p>Safe Procedures</p>	<ul style="list-style-type: none"> An orderly method of documenting and controlling written information is needed, that will ensure that the up-to-date version is available wherever it is needed. Every task must be assessed for hazards and risk and an appropriate procedure (safe system of work) defined. The Quarries Regs specify that certain procedures, information sources and plans must be available to form the 'Health and safety Document' for the quarry. <i>Procedure is not the written document.</i> This is only used to define it. Procedure is the full understanding of, and adherence to, the best, safest way of doing the job by all concerned. The people who do the work must be shown to be engaged at all stages. Essential underpinning safety procedures include 'permit to work' and 'isolation'. These must be well-prepared, fully understood and followed. Personal protective equipment appropriate for the risk must be provided in support of working procedures. The people who use it should be involved in the selection and provide feedback on ease of use. 	<p><i>quarrysafe.co.uk</i> Specification for the Quarry Health & Safety Management System (QHSMS) pp27-33 and Audit Proforma</p> <p>Management of Health and Safety at Work Regs Regs 4,5</p> <p>Quarries Regs Reg 7 ACOP pp13-17</p> <p><i>quarrysafe.co.uk</i> Audit check list 7 H&S Document</p> <p><i>quarrysafe.co.uk</i> Audit check lists 2 and 4 Blasting and Geotechnics</p> <p><i>quarrysafe.co.uk</i> Permit to Work – A model procedure for quarries</p> <p><i>quarrysafe.co.uk</i> Isolation – A model procedure for quarries</p> <p>Personal Protective Equipment at Work Regs</p>

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<div style="background-color: #f4a460; padding: 5px; text-align: center;">Workforce</div>	<ul style="list-style-type: none"> ● Involvement of the workforce as safety representatives, first aiders, fire wardens and any work-related lead role that provides greater satisfaction at work is encouraged. ● A site safety committee provides the legal requirements for consultation and brings great benefit for the site. ● Every employee should be engaged as far as possible, <i>or to put it another way</i> no employee should be left out of the health and safety learning process, especially in the lone working situations in many quarry jobs. A planned programme of involvement in site safety walkabouts, risk assessment review, toolbox talks, etc. is advised. ● A programme of health surveillance at commencement of work, change of job and regular intervals must be provided to give information to employees and cover for the employer in case of later claims. ● Rehabilitation support for persons injured or with health problems should be discussed and provided where useful. Not only does this help individuals but it raises the company focus on keeping people well and productive. ● Lone working situations must be reviewed to provide safety checks. 	<p>Health & Safety at Work Act</p> <p>quarrysafe.co.uk Behavioural Safety</p> <p>Management of Health and Safety at Work Regs Reg 6</p> <p>Control of Substances Hazardous to Health Regs Reg 11</p> <p>Quarries Regs Reg 43 ACOP p69</p>

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<div style="background-color: #f4a460; padding: 5px; text-align: center;">Contractors</div>	<ul style="list-style-type: none"> ● A clear understanding of health and safety expectations should be part of negotiation with contractors. ● Any information that can help contractors to comply should be provided in advance of arrival on site. ● An effective induction process for all contract personnel must be developed and used, ensuring proof of competence, effective risk assessment and control and site awareness. 	<p>Quarries Regs Reg 6 ACOP pp11-13</p>
<div style="background-color: #f4a460; padding: 5px; text-align: center;">Competence</div>	<ul style="list-style-type: none"> ● The competence needs for each job, including formal training, on-the-job guidance and experience required before working unsupervised, should be listed. ● A planned programme of development to meet these needs for each individual, with timescales, should be available. ● Sufficient numbers of competent persons must always be present to carry out the work and to supervise less competent colleagues. 	<p><i>quarrysafe.co.uk</i> Specification for the Quarry Health & Safety Management System pp 22-26</p> <p>Quarries Regs Reg 9 ACOP pp 19-20</p>
<div style="background-color: #f4a460; padding: 5px; text-align: center;">Law</div>	<ul style="list-style-type: none"> ● Somebody must have clear responsibility to keep the company abreast of legal requirements, either personally or in liaison with a contracted specialist. 	<p><i>quarrysafe.co.uk</i> Relevant UK legislation</p> <p><i>hse.gov.uk</i></p>

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<p style="text-align: center;">Emergencies</p>	<ul style="list-style-type: none"> ● Emergency plans must be in place and regularly reviewed. ● Greater responsibility now falls upon the employer for fire risk assessment now that fire certificates are no longer required. 	<p><i>quarrysafe.co.uk</i> Emergency procedure – A model procedure for quarries</p> <p>Management of Health and Safety at Work Regs Reg 8</p> <p>Regulatory Reform (Fire Safety) Order 2005</p>
<p style="text-align: center;">Audit</p>	<ul style="list-style-type: none"> ● Internal audit is the best systematic way to verify that things are happening as they should in the field and to instigate corrective action. ● The QHSMS (<i>quarrysafe</i>) provides a set of detailed checklists covering most areas to help quarry people with audit. ● External audit provides another specialist viewpoint. This may be provided by accreditation companies. One trade association is developing a quarry-specific external assessment process for members. 	<p><i>quarrysafe.co.uk</i> Audit Guidance with Check Lists</p> <p>British Aggregates Association – Health and Safety Assessment <i>british-aggregates.co.uk</i></p>
<p style="text-align: center;">Review</p>	<ul style="list-style-type: none"> ● Any management system must be regularly reviewed and improved. ● It is a legal requirement for the operator of a quarry to review health and safety measures regularly and when changes take place. 	<p><i>quarrysafe.co.uk</i> System Review Guidance</p> <p>Quarries Regs Reg 11 ACOP p 21</p>
<ul style="list-style-type: none"> ■ Any operating quarry will already display much good practice. The above guidance and references are offered to reinforce this and to help to identify any weaker areas that need further work. ■ The HSE website has much excellent user-friendly guidance relating to the various legislation referred to above. Visit <i>hse.gov.uk</i> to find it. 		