GUIDELINES FOR THE MANAGEMENT OF PUBLIC SAFETY ON MPA MEMBERS' OPERATIONAL AND NON OPERATIONAL SITES

Reviewed March 2020

Introduction

These guidelines have been prepared in consultation with MPA member companies. They provide guidance on good practice in the management of public safety and are complimentary to the existing statutory requirements.

They recommend systems and actions to assist operators:

- To manage trespass issues on operational, closed or mothballed sites
- To help deter members of the public from trespassing on their sites
- To warn members of the public about the potential hazards
- To manage public safety particularly when there is a public right of way on a site.

Whilst the industry is being pro-active in the management of public safety, the success of these activities requires the support of the public in acting responsibly by both heeding the warnings and not crossing barriers/fencing designed to protect them and others from potential hazards.

Raising the awareness of adults and young people of the potential hazards that they may be exposing themselves to when they enter a quarry uninvited, will continue to be an important part of the industry's communication strategy in addressing the issue of public safety.

MPA will work with other stakeholders in communicating key safety messages and sharing good practice in the management of public safety. It will produce resources to support the communication of safety messages and continue to run its annual Stay Safe campaign.

The majority of the fatalities involving members of the public in quarries are water related. An integral part of MPA's strategy to reduce these fatalities is its support for the UK Drowning Prevention Strategy 2016-2026. MPA also recommends the RoSPA publication 'Managing safety at inland waters'. This contains advice and resources for site managers and duty holders at UK inland water sites such as reservoirs, canals and quarry lakes. It aligns with the drowning prevention strategy.

MPA believes that incidents involving members of the public can be significantly reduced by supporting its members in the application of these guidelines and working with other stakeholders who have a shared interest in the management of public safety.

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This information sheet gives guidance to assist quarry operators in providing barriers specifically to comply with Regulation 16 of the Quarries Regulations 1999 (relating to perimeter security around the quarry). It should be read in conjunction with the Approved Code of Practice "Health and Safety at Quarries" (L118) which can be downloaded free of charge from HSE's website (http://books.hse.gov.uk/hse/public/home.jsf). Regulation 16 builds upon duties imposed by section 3 of the Health and Safety at Work etc. Act 1974. Section 151(2) of the Mines and Quarries Act 1954 also relates to quarry boundary security. This information sheet should be read in conjunction with the Regulation 22 information sheet Quarries Legislation 23/10/2012

To view this document on the Safequarry website click here http://www.safequarry.com/hotview.aspx?kHotTopic=133

Regulation 22 - Guidance on Danger Areas in Quarries

This information sheet gives guidance to assist quarry operators in providing equipment or barriers specifically to comply with Regulation 22 of the Quarries Regulations 1999 (relating to Danger Areas within the quarry). It should be read in conjunction with the Approved code of Practice "Health and Safety at Quarries" (L118) which can be downloaded free of charge from HSE's website (http://books.hse.gov.uk/hse/public/home.jsf). This information sheet is not intended to deal with the danger zone created during shotfiring operations and should be read in conjunction with the Regulation 16 information sheet. Quarries Legislation 23/10/2012

To view this document on the Safequarry website click here http://www.safequarry.com/hotview.aspx?kHotTopic=134

Information Sheet 6 - Abandonment or Ceasing of Operations at Quarries

QNJAC Guidance – Information sheet 6 - December 2014 "Abandonment" means stopping the use of the quarry (for the extraction or preparation for sale of minerals) with no intention of re-opening the quarry at some time in the future. "Ceasing operations" means suspending the use of the quarry (for the extraction or preparation for sale of minerals) for a significant period of time with the intention of re-opening the quarry at some time in the future.

The guidance is intended to advise on good practice associated with either of the above events and applies to quarries coming under the provisions of the Quarries Regulations 1999 (QR99). Geotechnical, Faces & Stockpiles 22/01/2015.

To view this document on the Safequarry website click here http://www.safequarry.com/hotTopics/QNJAC%20Geotech%20Abandonment%20or%20ceasing%20-%20Final%20December%202014.pdf

Appendix 3

Quarry warning signs approved by MPA.

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Sample forms provided by member companies that illustrate check lists of the type of issues to be considered when reviewing management of sites either prior to closure or following the closure of the site.

- CEMEX UK - Risk Assessment form for vacant or mothballed sites
- MARSHALLS - Remote quarry start up and close up

Appendix 5

Links to

‘Stay Safe’ Resources

'UK Drowning prevention strategy 2016-2025'

https://www.nationalwatersafety.org.uk/strategy/

RoSPA's 'Managing safety at inland waters'

https://www.rospa.com/Leisure-Safety/Water/inland

GUIDELINES FOR THE MANAGEMENT OF PUBLIC SAFETY ON MPA MEMBERS' OPERATIONAL AND NON OPERATIONAL SITES – Updated March 2015

1. Public safety is a key concern of all MPA members and an integral part of the industry's drive to achieve the target of zero harm.

2. The management of public safety is a key issue for all company owned or managed sites regardless of whether the site is operational, non-operational or disused.

3. Operators should ensure that they are aware of all sites for which they have a legal responsibility in relation to public safety and be aware what those responsibilities are. Responsibilities may arise for many reasons; from freehold ownership, a lease or other legal agreement, which may go back many years.

4. All company owned or managed sites should be risk assessed in relation to their exposure to public safety.

5. The risk assessments should be reviewed at least annually or at the time of any significant changes that might impact on public safety. The review should consider the impact of any changes and include an indication of when the next review should be conducted. The flow chart in Appendix 1 provides an indication of the sorts of issues to be considered when undertaking a public safety risk assessment.

6. Members should use the criteria below to help determine the level of risk to public safety at a site and what barriers / fencing, warning signs and other actions are appropriate.

   - The nature of the hazards on the site e.g. deep water, face heights, lagoons
   - The proximity to the public e.g. urban dwellings, schools, rights of way
   - Proximity to a public highway
   - The history of trespass or vandalism on the site or nearby sites
   - The periods or length of time during which the site is unmanned
   - Whether it is in a rural or urban setting
   - The appropriateness of existing barriers and warning signs

   To assist members in complying with their legal obligations they should also reference the available industry guidance on fencing and signage. (QNJAC Information sheet GS3, GS4 and Information sheet 6 - see Appendices).

7. Where the public has the right of access to a quarry, for example through a public right of way, operators should be aware of their duty of care in relation to hazards such as falling trees etc. This will be in addition to the normal responsibilities of deterring trespass from the right of way into other potentially hazardous parts of the site.

   Members seeking clarification on the potential implications of Countryside Right to Roam Act 2000 (CroW) should review the information available on the HSE website http://www.hse.gov.uk/quarries/country.htm

On active sites where public rights of way exist within the danger zone for shot firing, members should follow the QNJAC guidance on Danger Zone Control and the Duty of Sentries. This can be viewed in the hot topic section of Safequarry http://www.safequarry.com/HotTopicsSearch.aspx

8. Site fencing, warning signs and safety equipment such as emergency buoyancy aids and throwing lines should be checked on all company owned or managed sites at a frequency determined by the risk assessment. A record should be maintained of inspections, any damage that has occurred and subsequent replacement or repair. In an ideal situation, a photographic record of damage and repairs will be maintained. A number of sites are using specialised software to help with the management of perimeter checks and the recording of this type of information. Please follow the links below to a couple of examples on Safequarry on how this might be achieved. MQP and Hanson Case studies on the effective management of quarry boundaries MPA currently supports a series of warning signs that are available for use by the industry, please see Appendix 3. These are being reviewed to ensure that they are in line with current best practice. In addition to warning of potential hazards, some signs might also incorporate information about site location, contact numbers and what action to take in the event of an incident.

9. Members should ensure that they have management systems in place to monitor the actions being taken to deter trespass and protect the public. A formal process such as the regular inspection and recording of boundaries and security measures should be included. Additionally company's health and safety systems would be subject to internal audit to ensure these systems are being applied and conducted appropriately.

10. Operators should ensure that the responsibility for the management of each site is defined in company procedures and structure charts particularly in relation to public safety, environmental issues and repair, upkeep and inspection

11. Where a significant risk of trespass exists, or actual trespass is occurring, members should engage with police and other relevant community stakeholders in the management of this issue. A record should be maintained of contacts with enforcement agencies, local authorities or schools together with relevant copies of letters,beat crime incident number e-mails and notes on phone calls made.

12. Where an operator's site is assessed to be a significant risk in terms of public safety/ trespass, an action plan should be put in place by the operator to assist in the management of this risk.

13. Operators should ensure that key contact information and the means of access to the site are known to relevant emergency services. This is particularly important on high risk, non-operational sites.

14. Operators should recognise that community engagement and other educational activities can play an effective and integral part in deterring trespass on quarry sites.

A community engagement plan might include contacts or meetings with;

- The residents of housing close to the quarry
- Local schools
- The parish council
- The emergency services
- Local youth workers
- Councillors and other opinion formers
- Contact with the local media

15. Operators should support the police in the prosecution of any individual involved in criminal damage or theft or other breaches of statutory regulations.

Abandoned, mothballed or ceased operations

QNJAC has issued new guidance on a range of issues associated with the management of this process. Certain elements apply to the management of public safety and these are in part referenced below. These guidelines do not cover all the issues and responsibilities that an operator should consider when operational activities cease. Operators should also review planning consents and other contractual obligations that might exist that are specific to the site.

16. Operators should ensure that they have informed the HSE and local authority when operations cease at a site whether this is permanent or a temporary closure (for a period greater than 12 months).

17. When a site becomes non-operational operators should take appropriate steps to minimise the potential hazards on site e.g. removing dangerous chemicals and fuel, protecting existing structures, removing the temptation of scrap metal and ensuring faces and access to haul roads are blocked off (See sample check list forms from CEMEX and Marshalls - Appendix 4).

18. Sites, should be in compliance with these guidelines when handed over to the owner, a new owner or other third party

19. When responsibility for a site is handed back to the owner, to a new owner or other third party, the transfer should include all appropriate documentation. This transfer should be formally recorded and signed for. It is recommended that this would include the latest risk assessment on site public safety.

20. If operators no longer have responsibility for a site, they should remove signage that incorporates their company branding or contact numbers. This will help to avoid potential confusion over ownership and who is responsible for maintaining fencing and signage. However, warning signs and appropriate barriers/fencing should be in place when the site is handed over /back to the owner.

21. Operators should consider what alternative options might be available to them in the management of disused quarries. Many disused quarries are being restored to create nature reserves and to enhance the biodiversity of the area in which they are located. Other options might include exploring the suitability of the site for a range of outdoor pursuits in partnership with the representative organisations for these activities.

Alternatively, it may be possible to transfer responsibility for the site to a community group / partnership who wish to develop the site as a local amenity. MPA will be providing case studies and further guidance on this later in the year. Please note that restoration work post closure from a legal perspective may constitute quarrying under the existing quarry regulations and therefore the HSE would need to be notified.

New Quarries

22. With new quarries, operators should seek to ensure that hazards associated with public trespass are considered. This may mean making application with the county council footpath officer to ensure that any rights of way are temporarily diverted. Due consideration should also be given to risks that can be minimised through planned early or temporary restoration dependent on the way extraction of material is planned. Planning should consider how in the longer term proximity to footpaths can be managed by for example diverting the route away from high faces or not facilitating access to deep water.

MPA support

23. Members are encouraged to review the resources available through the MPA to assist with community engagement particularly with children and young people and consider whether they would like to actively participate in the 'Stay Safe' campaign particularly if they have a site where there is a history of trespass and it is deemed to be a significant risk. See Appendix 5 for links to Stay Safe Resources.

24. Members are requested to maintain a record of incidents involving an injury/fatality to members of the public on their sites (or incidents where serious injury was only avoided by the action of staff, emergency services or luck) and include this information in the safety reporting to the MPA

25. Members will, where possible, continue to communicate and support MPA best practice initiatives to deter trespass such as the Stay Safe campaign.

DISCLAIMER

Please note that the information contained in this document is not intended to constitute a complete or definitive statement of the law on any subject and is not intended to constitute legal advice in any specific situation. Its intended content is to provide assistance to members who seek to proactively reduce the risk associated with quarries to members of the public.

For advice on any particular situation, please contact your own legal representative.

For further information contact: Elizabeth Clements:
Elizabeth.clements@mineralproducts.org, Tel: 0207 963 8000

Updated March 2015

mpa
essential materials
sustainable solutions

Appendices

For further information contact: Elizabeth Clements:
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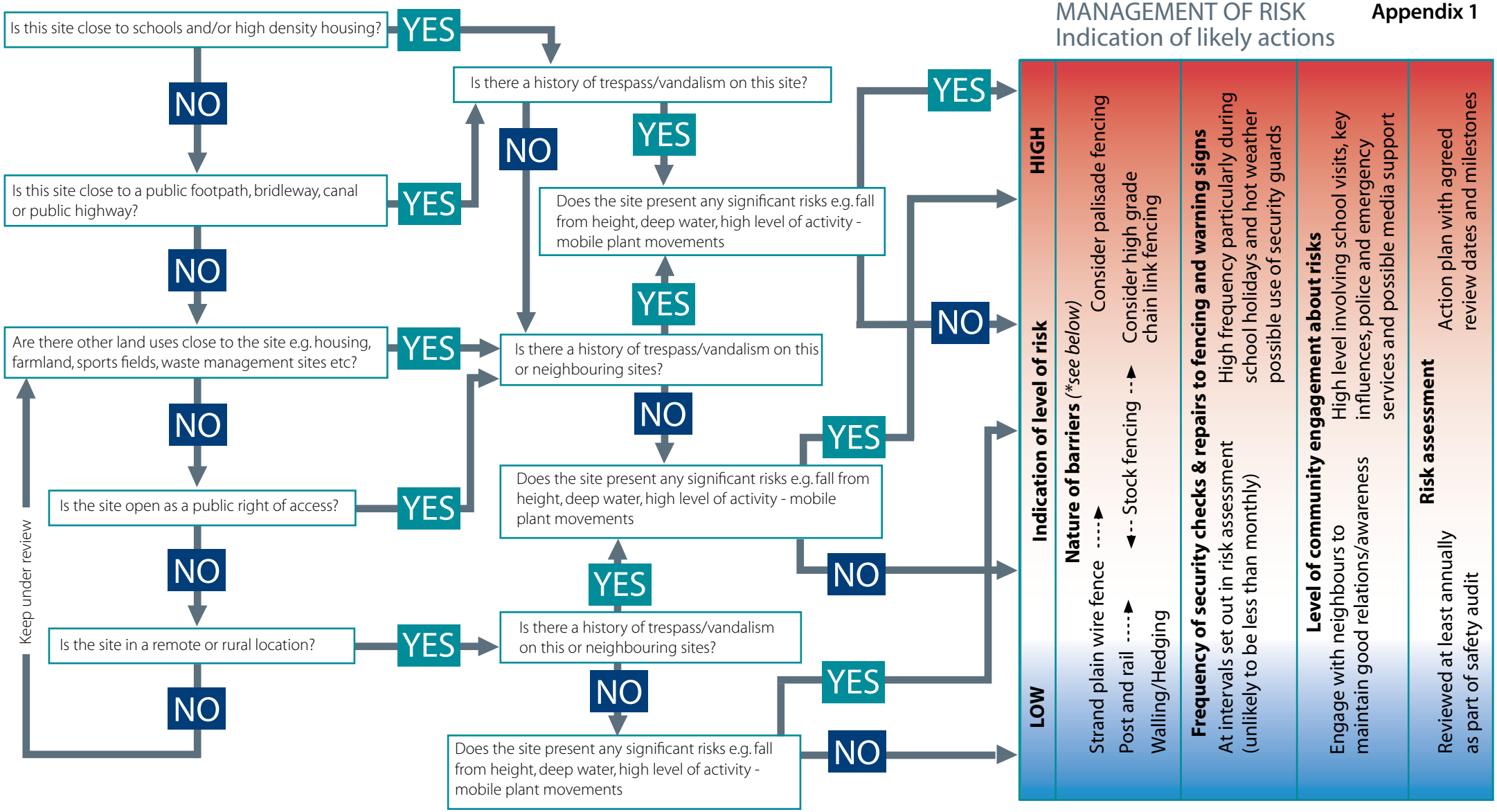
Updated March 2018

Quick reference guide for management of public safety

mpa essential materials sustainable solutions



The flowchart above is designed to provide an indication of the issues that an operator may need to consider when assessing the level of risk and how it might be minimised. The selection of the physical barriers such as fencing will need to be appropriate to the level of risk and the environment. The operator will also need to take into account planning conditions and consents, access rights for tenants and third parties and legal obligations laid down in the lease. *Please see the QNJAC guidance in Appendix 2 on boundary or perimeter barriers at quarries and danger areas.

Version 1: 28 March 2012

Appendix 2

Quarries National Joint Advisory Committee (QNJAC)

General Series

Information Sheet GS3

March 2012

Guidance on the Provision of Boundary or Perimeter Barriers at Quarries (Quarries Regulations 1999, Regulation 16)

This Information Sheet has been developed by the Quarries National Joint Advisory Committee (QNJAC) to help quarry operators, contractors, managers and others learn how to make health and safety improvements in the quarry industry. This guidance represents good practice, which may go further than the minimum you need to do to comply with the law.

Version 1: 28 March 2012

Guidance on the provision of boundary or perimeter barriers at quarries (Regulation 16)

This information sheet gives guidance to assist quarry operators in providing barriers specifically to comply with Regulation 16 of the Quarries Regulations 1999 (relating to perimeter security around the quarry). It should be read in conjunction with the Approved Code of Practice "Health and Safety at Quarries" (L118) which can be downloaded free of charge from HSE's website (http://books.hse.gov.uk/hse/public/home.jsf). Regulation 16 builds upon duties imposed by section 3 of the Health and Safety at Work etc. Act 1974. Section 151(2) of the Mines and Quarries Act 1954 also relates to quarry boundary security. This information sheet should be read in conjunction with the Regulation 22 information sheet.

Introduction

1. The regulations require the quarry operator to ensure that, where appropriate, properly maintained and suitable barriers are provided around the boundary of the quarry for the purpose of discouraging trespass. The Health and Safety at Work etc. Act 1974 further requires that the employer (normally the Quarry Operator) makes sure that the conduct of his undertaking (operation of the quarry) does not expose those who are not his employees, but who might nevertheless be affected by the undertaking, to risks, so far as is reasonably practicable.

2. Under section 151(2)(c) of the Mines and Quarries Act 1954 (MQA) any quarry (whether in the course of being worked or not) which does not have an efficient and properly maintained barrier, designed and constructed to prevent people from accidentally falling into the quarry, and which by reason of its accessibility from a road or public place constitutes a danger to members of the public, is deemed to be a statutory nuisance under the Environmental Protection Act. The local authority, not HSE, enforces this provision.

Regulation 16: Suitable Barriers

3. Regulation 16 QR requires the quarry operator to ensure that, where appropriate, a barrier suitable for the purpose of discouraging trespass is placed around the boundary of the quarry, this will be determined by risk assessment. The barrier must also be properly maintained.

4. What is suitable, and where and in what circumstances it will be appropriate to have a barrier, will depend on a number of factors, including the likelihood of trespassers. Things to consider as part of the risk assessment process may include (this is not intended as an exhaustive list):

- Proximity of quarry to housing, shops or other places which the public visit
- Proximity of quarry to schools or colleges
- Do any access routes serving local amenities such as housing, shops and schools go past the quarry (eg footpath, road etc)?

- Is there a public access route (footpath, bridleway etc) running through, or near to, any part of the quarry?
- Number of people likely to access the quarry
- History or evidence of trespass and/or vandalism and/or children playing nearby
- Is the quarry in a rural or urban location?

5. For example, if the quarry lies between a housing estate and a school with a footpath going past the quarry boundary, a very high standard of barrier would be expected with an equally high standard of inspection and maintenance. However, if the quarry is in an isolated rural location remote from any dwellings, then a barrier such as a stock proof fence (or even hedges, trenches or mounds) around the boundary may be suitable and weekly inspection checks sufficient. However, even if the quarry is remote but there is evidence of trespass, then a higher standard would be appropriate.

6. Some sand and gravel quarries can cover very large areas of land. It may not be reasonably practicable to provide a barrier around all of the land owned and/or operated by the quarry operator, indeed it may not all form part of the quarry. For example, a field next to the extraction area might still be used for agricultural purposes even though it has planning permission for extraction. This field is not part of the quarry as defined in QR R3.

7. Barriers to discourage trespass have the purpose of controlling risks to people other than those who work at the quarry and the suitability of barriers will therefore take into account the seriousness of the hazard and degree of risk. In some cases, the risks to health and safety may be lower and this will inform the assessment of suitability. For example, at a sand and gravel quarry excavation with no standing water or risk of injury from falls, an assessment might conclude that hedges and normal field gates are all that are necessary. Other factors affecting the extent of the risk include the depth of any standing water and the degree of incline of the slopes into the water. In order to comply with his duty under section 3 HSWA, an employer should consider the use of signage to supplement the barriers required by Regulation 16 or in situations where the risk assessment concludes that use of a barrier at all is inappropriate.

8. All risks must be taken into account in considering the need for barriers and their suitability. Access to the processing plant area or to areas with moving vehicles creates greater hazards. These areas are still clearly part of the quarry and trespass must be effectively discouraged. In such circumstances, it may be necessary for these areas to be more securely fenced off than other areas and clearly signed.

9. The main access to the quarry and other access points should be subject to their own risk assessments because the nature of the barrier (or other means to discourage trespass) will clearly be different to that provided along other lengths of the quarry boundary. Furthermore, the assessment of these access points may need to consider different arrangements to discourage trespass at different times of the day and at weekends etc when the risks may change. Where it is deemed by risk assessment that a physical barrier is not appropriate at an access point, other means to discourage trespass are needed, which may include signage.

10. Account also has to be taken of situations where public rights of way go across the quarry. Public rights of way within the boundary of the quarry should be provided with an adequate barrier to discourage trespass in a similar manner to the outer quarry boundary where the risks are similar. A higher standard may be required where the right of way passes close to a particular hazard that is not close to the boundary. Where the right of way crosses an internal traffic route, adequate traffic management systems should be in place for both pedestrians and traffic. Consideration needs also to be given to maximising sight lines for both.

Appendix 2a

Quarries National Joint Advisory Committee (QNJAC)

General Series

Information Sheet GS4

March 2012

Guidance on Danger Areas in Quarries (Quarries Regulations 1999, Regulation 22)

This Information Sheet has been developed by the Quarries National Joint Advisory Committee (QNJAC) to help quarry operators, contractors, managers and others learn how to make health and safety improvements in the quarry industry. This guidance represents good practice, which may go further than the minimum you need to do to comply with the law.

Version 1: 28 March 2012

Guidance on danger areas in quarries (Regulation 22)

This information sheet gives guidance to assist quarry operators in providing equipment or barriers specifically to comply with Regulation 22 of the Quarries Regulations 1999 (relating to Danger Areas within the quarry). It should be read in conjunction with the Approved code of Practice "Health and Safety at Quarries" (L118) which can be downloaded free of charge from HSE's website (http://books.hse.gov.uk/hse/public/home.jsf)
This information sheet is not intended to deal with the danger zone created during shotfiring operations and should be read in conjunction with the Regulation 16 information sheet

Introduction

1. The regulations require the quarry operator to ensure that any danger area in the quarry is clearly marked and that equipment or barriers designed to prevent inadvertent entry by unauthorised persons are in place. Where a person at work is authorised to enter a danger area, appropriate measures to protect health and safety must be taken.

Danger Area

2. Regulation 22(b) states that equipment or barriers are to be used to prevent inadvertent entry to places where there is a risk of a person falling a distance likely to cause personal injury; a risk of a person being struck by a falling object likely to cause personal injury; or a significant risk to the health and safety of any person. It is important to note that significant health risks are included.

3. The whole quarry is a potential danger area, but to treat it as such would devalue the concept of a danger area within the quarry. In general, a danger area is a place where there are **specific hazards** that people need to be made aware of and protected against.

4. Quarries may well have settling lagoons associated with them. These are likely to be hazardous because quick sands may be present and exposed areas of material may lead people to think that they are safe to walk on. Any edges leading directly into the lagoon water are likely to be steep and the water relatively deep. In this case the body of water should be securely fenced off and clearly signed.

5. Other examples of danger areas include:

- An area of potential instability on the quarry face identified during a routine inspection.
- The blast site (up until the 'all clear' is sounded)
- A rock pile where unfired explosive has been identified.

- The working area around a crane carrying out lifting operations as part of plant maintenance.

- Areas where high noise and/or dust levels might exist.

The above list is not intended to be exhaustive.

Barriers

6. The legislation requires the quarry operator to ensure that danger areas are clearly marked and that measures are taken to prevent unauthorised persons from inadvertently entering the area. The ACOP recognises that no barrier can prevent access by a determined person and that is not the intention.

7. In order to deal with a hazard, appropriate people may need to be authorised to work, suitably protected by appropriate safeguards, within the designated danger area.

8. The choice of a suitable barrier should be subject to an assessment of the risks. Matters to consider might include:

- The nature of the hazard
- The area of the quarry where the hazard exists (e.g. in a remote part or close to processing plant or offices)
- The number of people affected.
- The amount of time that the hazard might exist before it can be dealt with.

9. For example:

- To demarcate an area where misfired explosives had been found, marker cones connected with hazard tape could be used along with signs in appropriate places, which might be worded, "DANGER – MISFIRED EXPLOSIVES, authorised persons only past this point." Additionally, consideration needs to be given to the situation where the misfire cannot be dealt with in a single shift, so some form of security would be necessary (this is also a requirement under the explosives section of QR).
- A similar approach could be used for areas of potential instability in the working face or a legacy face of the quarry to mark out the area that might be affected if failure should occur.
- A higher standard of barrier or other form of action is likely to be appropriate if a potential instability is identified in any face above areas where people work, such as a coating plant or maintenance facility. This is because the risk is not remote, more people are affected and it may be present for longer. It may be necessary to close the plant until the defect can be rectified.
- For areas where the risk is a fall from height, various types of barrier might be appropriate. The highest reasonably practicable standard should be used at all times. For example, it would not be reasonably practicable to provide permanent fixed handrails to every quarry face, but earth bunds or tensioned ropes or straps to prevent inadvertent access may well be appropriate.

- Where the danger area is a settling lagoon, it might be appropriate to securely fence off the whole area and provide lifebelts. The danger is present at all times so the standard of protection should be proportionate and take into account the relevant risks.
- Where part of the quarry is a danger area due, for example, to lack of edge protection or access to standing water, adequate arrangements such as posting notices and providing suitable barriers should be made to prevent inadvertent access.

Where a new danger area has been identified, consideration should be given to notifying verbally those who may be affected as an additional precaution.

Typical fencing around a lagoon

A toe bund below a rock face: NB: Land Rover fitted with ‘buggy-whip’

Quarries National Joint Advisory Committee (QNJAC)

Information Sheet 6

December 2014

Abandonment or Ceasing of Operations at Quarries

This information sheet has been developed by the Quarries National Joint Advisory Committee (QNJAC) to help quarry operators, contractors, managers and others make health and safety improvements in the quarry industry. This guidance may go further than the minimum you need to do to comply with the law

Approved by the Quarries National Joint Advisory Committee (QNJAC)
(Version 1: Dec 2014)

target zero

Target Zero Geotechnical Information Sheet No 6: Abandonment or ceasing of operations at quarries

Definitions used:

"Abandonment" means stopping the use of the quarry (for the extraction or preparation for sale of minerals) with no intention of re-opening the quarry at some time in the future

"Ceasing operations" means suspending the use of the quarry (for the extraction or preparation for sale of minerals) for a significant period of time with the intention of re-opening the quarry at some time in the future"

Application and Notification of quarrying operations:

This guidance is intended to advise on good practice associated with either of the above events and applies to quarries coming under the provisions of the Quarries Regulations 1999 (QR99). The Regulations will continue to apply to any quarry where:

a) mineral (including coal) is extracted or prepared for sale or;
b) work is being done to prepare the quarry for abandonment (for example, landscaping) and/or;
c) where work is being undertaken to prevent water or any other substance flowing into an adjacent quarry.

QR99 does not apply where mineral has not been extracted or prepared for sale for a period of more than 12 months, **except** if works covered under b) or c) (or both) above are being undertaken on site. (See Regulation 4)

The Health and Safety Executive (HSE) must be notified of any of the above events giving the information specified under Regulation 45 of QR99.

The HSE does not need to be formally notified of temporary closure of quarries lasting up to 12 months. It is, however, helpful if quarry operators advise the local inspector in these circumstances. HSE must be notified of quarries that are **abandoned or suspended** for periods of more than a year. (See Regulation 45)

Any quarry that is abandoned or where operations have ceased must be left in a safe condition.

When a quarry closes, any remaining excavations or tips must be left in a safe condition (see QR99 regulation 6(4)). Tips as defined in the Mines and Quarries (Tips) Act 1969 will, on abandonment of the quarry, become Part II tips under that Act, which is enforced through the Environmental Protection Act 1990.

In the case of such tips, the abandonment notification should include the information gathered

during geotechnical assessments. This information should be passed on to the relevant Local Authority who are responsible for enforcing Part II of the Mines and Quarries (Tips) Act 1969.

Restoration

All restoration works must be undertaken in accordance with the QR99. This is especially important as restoration often involves work on previously identified significant hazards, which will have been the subject of previous geotechnical assessments and notifications to the HSE. It is also important to check that the assessments are up to date before restoration works are carried out, otherwise further geotechnical advice may be necessary.

Duties when a Quarry is Abandoned:

See Flow Charts at Appendix 1a and 1b

The closure notification to the HSE should include information gathered during geotechnical assessments. This information will be passed on to the local authority and should include all plans, tipping records, drilling records, plans and cross-sections that are referred to but not necessarily included within the latest assessment. It is also good practice to include all previous assessments and any photographs which show the construction of the geotechnical features.

It is good practice to archive all relevant reports.

If there are any coal workings within the site then the Planning and Local Authority Liaison Department within the Coal Authority is the primary point of contact between the Coal authority and Local Planning Authorities on the coalfields of England, Scotland and Wales on all matters relating to the Coal Authority's interests.

Liaison with the local authorities as soon as possible before abandonment is advisable. The first point of contact should always be the mineral planning authority. In Scotland not all authorities have dedicated mineral planners and the point of contact should be with the chief planning officer.

Leaving the quarry in a safe condition when closed/mothballed:

In the event of the abandonment of, or ceasing of operations, at a quarry, the operator shall ensure that the quarry is left, so far as is reasonably practicable, in a safe condition. (See Regulation 6)

It is normally better if public rights of way can be diverted around quarries. Where diversion is not possible, precautions must be implemented based on a detailed risk assessment of the route and the area around it. Further guidance is available at:
http://www.safequarry.com/hotTopics/R16%20ACOP%20revisions%20guidance%20note%20-%20Final%20Doc%202012.doc

It is good practice for these risk assessments to be passed on to the relevant local authority

with confirmation that any controls measures identified have been put in place.

The risk assessment should be reviewed at intervals determined by experience to ensure that nothing has changed and that the control measures are still in place and effective

Hazards to the general public:

If the quarry is next to a road, footpath or somewhere else that people can easily get access to, then a properly maintained and effective barrier should be provided, otherwise the quarry will become a statutory nuisance as defined. (Section 151 of the Mines and Quarries Act 1954 & Environmental Protection Act 1990)

In Scotland the requirements under the Mines and Quarries Act 1954 are covered in the Statutory Nuisance Provisions of the Public Health etc (Scotland) Act 2008.

Please see Link to QR99 Reg 16 Guidance
http://www.safequarry.com/hotTopics/R16%20ACOP%20revisions%20guidance%20note%20-%20Final%20Doc%202012.doc

Barriers should be inspected for trespass or damage at a frequency determined by experience. Inspections may need to be increased during periods of warm weather or school holidays

Where fences are damaged, take a photograph of the fence before and after repair to keep with the record of the inspection. If the damage is suspected to be the result of vandalism, it is good practice to report this to the police and get a crime number.

If Trespass is an issue then the Mineral Products Association offer resources for a 'Stay Safe' campaign that can be run with local schools and youth clubs.

https://www.mineralproducts.org/Campaigns/Stay-Safe.aspx

Countryside and Right of Way Act 2000:

Guidance is available at: http://www.hse.gov.uk/quarries/country.htm

A walkover of the site with an officer from the local authority to confirm that they are satisfied with the nature and condition of the site fencing could be useful. A record of any exchange of correspondence confirming the findings of the site visit may be helpful for both parties in the future.

Record Keeping:

The information required under QR99 must be kept available for at least three years. (See Regulation 44).

Requirements under planning permissions:

Before a quarry is abandoned it is recommended that a final visit by the relevant planning authority/ Environment Agency is undertaken, to sign off the work done.

Communications with new owners:

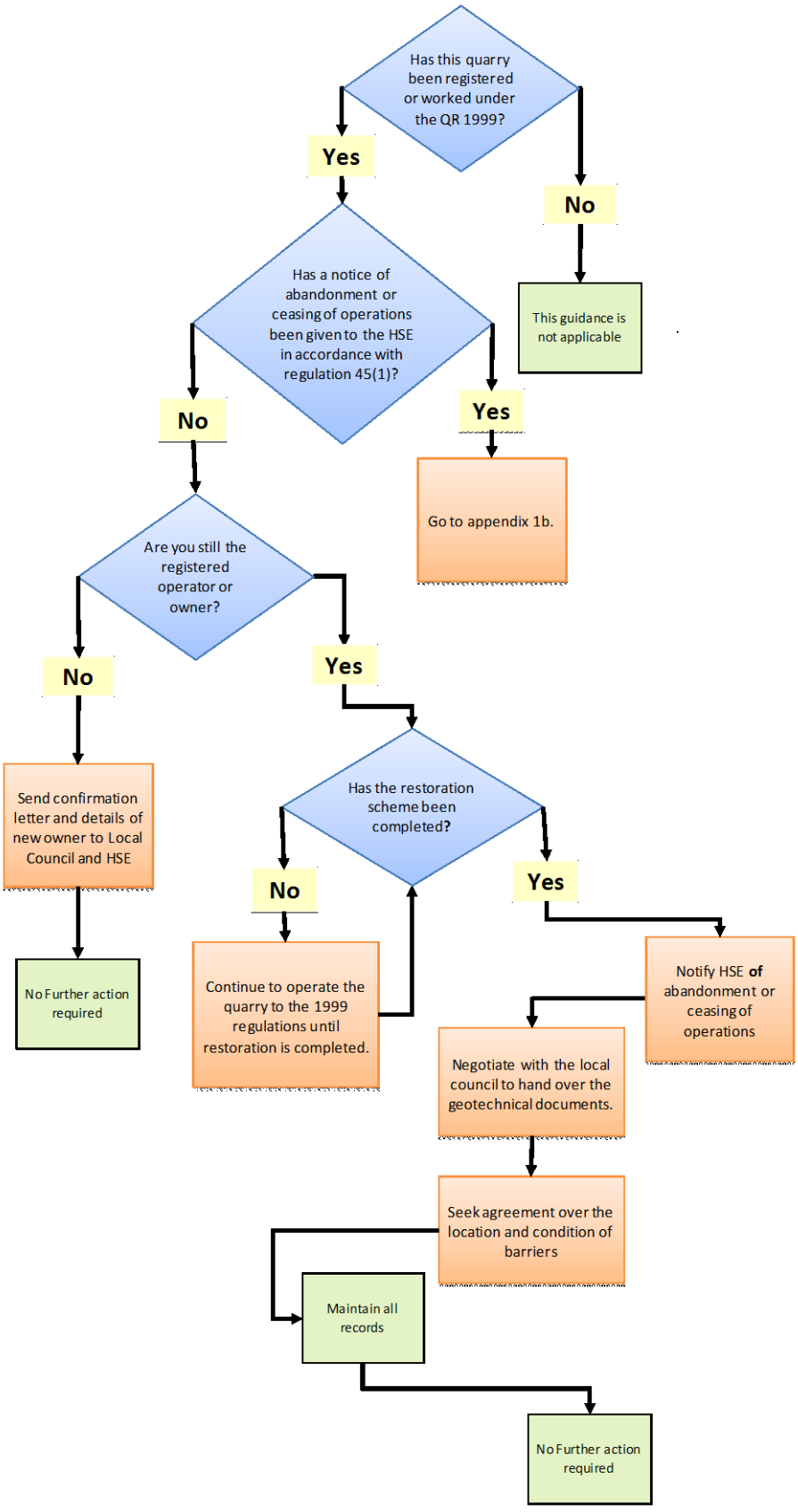
The passing on of the new contact information to owners of significant structures on adjacent land could avoid issues in the future. For example, electricity supply, gas/water pipelines and other services. This is especially important to utility companies with pylons and pipelines close to quarry boundaries.

Removal of signage:

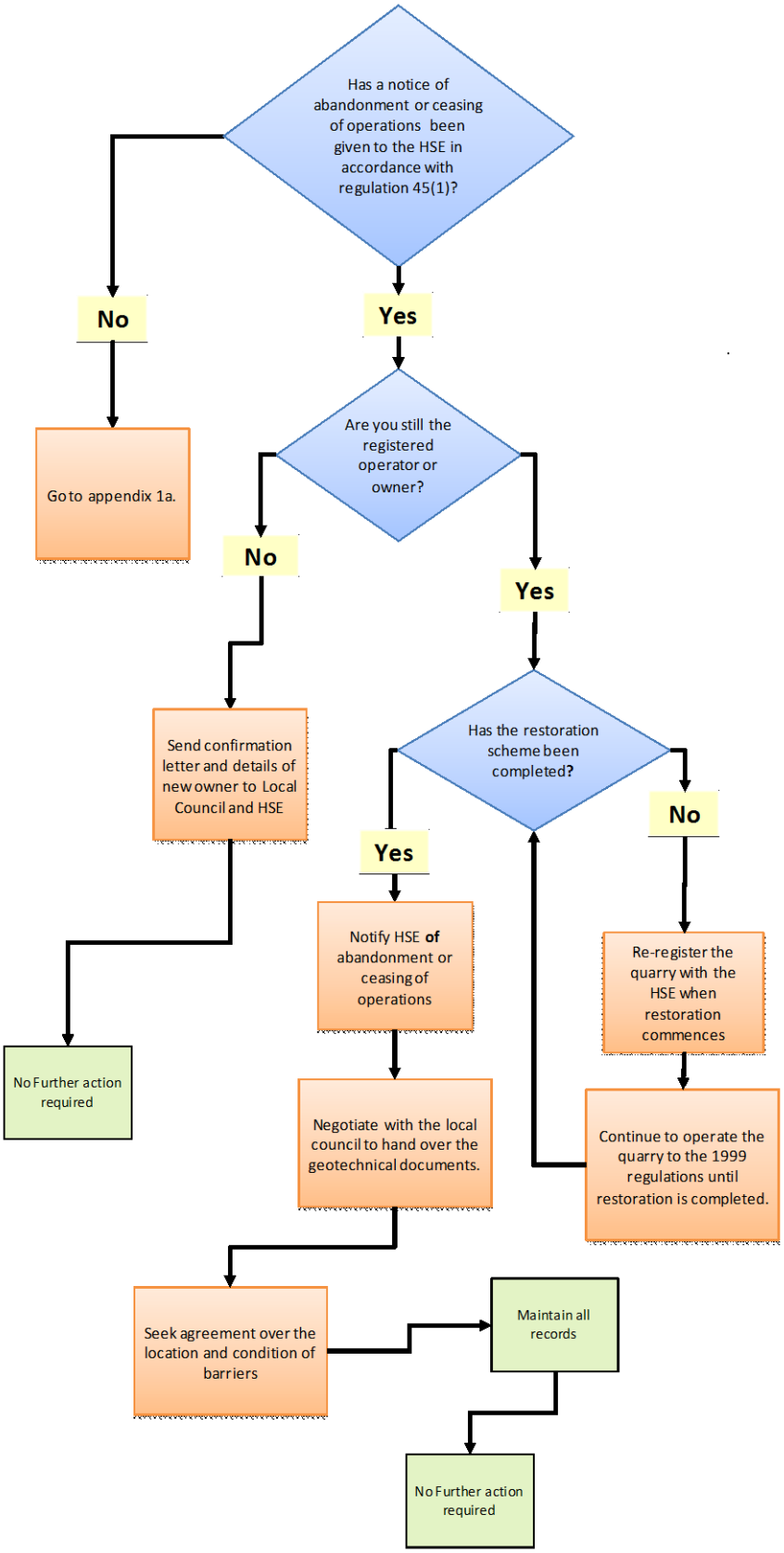
Once the quarry is abandoned and handed over to a new “owner” all company signs and logos should be removed to avoid ownership and responsibility confusion in the future.

This information sheet has been produced by the QNJAC Target Zero Geotechnical, Face & Stockpile Operations Working Group.
It has been approved by the Quarries National Joint Advisory Committee (v 1 date: Dec 2014).

Appendix 1a - Quarry Abandonment or Ceasing of Operations



Appendix 1b - Quarry Abandonment or Ceasing of Operations



Mineral Products Association

The Trade Association for the Aggregates, Asphalt, Cement, Concrete, Dimension Stone, Lime, Mortar and Silica Sand Industries

STAY SAFE SAFETY SIGNS

MPA, in collaboration with members, has updated and extended the original range of Stay Safe signs for use on site perimeters and boundaries. New graphically visual signs have also been added to the range. These can be purchased from the following official suppliers:

GSB Signs	**www.gsbhealthandsafetysigns.co.uk**
Rainbow Signs	**www.uksafetystore.com and www.rainbowsafety.co.uk**
Signify Signs	**www.signifysigns.co.uk**

If you would like to use your own supplier, please ask them to contact Elizabeth Clements, to facilitate this.

Appendix 4

Risk Assessment

Vacant Properties and Derelict Sites

Company . . . . . Person(s) undertaking

Assessment . . . . . .

Property/Site . . . . . Date . . . . . .

HAZARDS AND ASSOCIATED RISKS	Yes/No	Sig.risk/ Not sig.
Boundary Protection		
Is the site fenced? May not be necessary if used for agricultural purposes or does not pose any additional hazards.		
Is the fencing suitable for the purpose? i.e. generally of a higher standard in urban areas or where other hazards are present or subject to frequent vandalism.		
Is the fencing/barrier safe? Barbed/razor wire or broken glass visible, with warning signs, and not placing persons at increased risk.		
Is the fencing inspected? Frequency dependent on hazards, record of trespass and damage. All fencing to be inspected prior to and during school holidays.		
Is the fencing maintained, if required?		
Are records kept of inspections and maintenance?		
Safety / Information notices		
Do notices indicate ownership and caution against entry?		
Do notices advise about specific site hazards? eg Caution - Deep water – Danger of drowning; Danger – Unsafe buildings.		
Are notices prominent, at regular intervals around boundary and near likely entrances?		
Public rights of way		
Are all public rights of way known about and marked on site map? Definitive Ordnance Survey maps should be used.		
Are all public rights of way clearly and correctly marked by signboards? Coloured arrows, waymarks etc.		
Are public rights of way maintained to prevent public straying into hazardous areas?		
Are stiles, gates etc maintained in good condition?		
Are notices prominent on the route of public rights of way advising of hazards?		
Nature of the land		
Is the land used for general agriculture and/or does not possess abnormal hazards? Is fencing etc required		
Has the site/property been used for industrial purposes and not returned to original condition? eg Buildings, structures, quarry faces, water filled pits remain on site.		

Buildings and structures		
Have the risks from asbestos containing materials been considered, with a formal assessment being completed where they may be present, and are the necessary controls in place?		
Are they stable and not at risk of collapse? Is there a requirement for regular inspections by a competent person?		
Have means of access to buildings been made secure? All doors, windows etc giving access should be secured, preferably by steel shutters.		
Have means of access to structures been removed? eg Ladders, conveyor structures etc.		
If access is gained are materials sound and low risk? eg Wooden walkways sound, fragile roofs of asbestos, glass etc. well signed to indicate risk?		
Have all hazardous/flammable substances been removed?		
Have water, gas, electricity etc been disconnected and made secure?		
Have material pits, wash pits, lagoons etc been filled in or otherwise made secure?		
Have all materials and equipment been removed/made safe to prevent young persons playing with them. eg Mobile plant, pipework etc.		
Pits and lagoons		
Is the water deep and cold, even in summer?		
Are the banks steep, unstable or slippery making egress difficult?		
Are the banks clear of trees and undergrowth for easy access?		
Is there rubbish, old machinery etc that may cause entanglement?		
Are there weeds that may cause entanglement when swimming?		
Is blue/green algae prevalent?		
Are there signs of people gaining access to swim, play, walk etc?		
Is access authorised for sailing and fishing clubs? Who has the legal responsibility for the water and the environs?		
Local factors		
Are there signs of young people and others gaining access?		
Are there signs of under age drinking, smoking etc? Greater risk of macho behaviour		
Is the site/water close to local schools and housing?		
Is there a history of unauthorised access and use of the site?		
Management of site		
Does a competent employee of the company inspect the site on a regular basis?		
Does the company maintain the site in a safe condition?		
Are the local authority, emergency services etc aware of ownership of the site with contact details?		
Are formal documented inspections carried out on a periodic basis?		

Vacant Properties and Derelict Sites

Action Plan

Company …… Location ……

Date …… Date for review ……

Planned Improvements	**By Who/When**

Appendix 4a Remote Quarry Start and Close Inspection Sheet

Quarry Location		**Inspection Date**		
Inspecting Manager		**Inspection Type**	**Start-up**	**Closing**
			Delete as Applicable	
Mobile Team Identification		**Contractors Working**	**Yes**	**No**
			Delete as Applicable	

Start-up Checks	√ X N/A	Closure Checks	√ X N/A
'Quarry Systems File' is available for use along with a adequate supply of Operational control forms		Quarry Systems File is safe, outstanding actions addressed or planned	
Is there a secure and suitable boundary fence		Is there a secure and suitable boundary fence	
Planning Conditions have all been checked and all the necessary controls are in place or planned		Planning Conditions have been checked off and all the conditions have been met before closure	
Is there a Management structure with appointed personnel (in writing)		Are all mandatory signs posted (Deep water, Danger deep Quarry workings etc)	
Emergency and Contingency arrangements are all up-to-date, checked off and re-familiarised		Are all buildings/plant left in a secure and vandal proof state	
Is there adequate first aid cover whilst the quarry is been worked		Have all oils and chemicals been removed from site	
Have suitable assessments been carried out on the quarry workings (prior to the commencement of any work)		Have all settlement pits/lagoons been emptied and made safe with fill material	
Production Planning meeting arranged and Quarrying Schedule agreed		Has access to all confined spaces, tunnels etc been prevented	
Are all contractors selected to work at the site fully inducted, competent and controlled		If mobile plant is to be left for later collection ensure it is secure and the arrangements agreed	
Manpower resources available and competent		Clean the access roads, check waste heaps will remain secure and any rubbish is removed	
Is the plant and equipment, whether hired or owned in a safe and serviceable condition before use		Is the emergency contact data updated, completed and posted	
Is all plant suitable for their assigned tasks		Ensure Quarried stone stocks are sorted, secure and a inventory made and passed on	
Quarry Managers Inspection' completed and plans made to address issues before Quarrying starts-up		'Quarry Managers Inspection' completed and plans made to address any significant issues before the Quarry is closed and left unsupervised	

Actions and Issues Requiring Attention or Notes for Future Information

Supervisors Signature		**Date**	

Appendix 5

Stay Safe Resources

Stay Safe is the annual media campaign which is run by MPA to help raise public awareness of the potential hazards people expose themselves to when they enter a quarry uninvited.

The campaign helps reinforce the educational and community engagement programmes run by member companies.

In addition to the media campaign, MPA also produces a range of resources that can be used to support these activities. The resources include teaching aids, leaflets, videos, stickers, websites and a facebook page.

Please follow these links to;

1.The MPA website that details the resources available and outlines the different elements of the Stay Safe campaign.

Stay Safe – MPA web page

2. View and share with others a powerful video that is used to support the campaign. It shows the parents and friends of young people who have died in quarry accidents talking about the impact it has had on their lives. There are other videos available on MPA's YouTube channel.

Stay Safe video

3. To view and "Like" the Facebook page that supports the campaign. It highlights recent incidents and reports of the consequences of trespassing in quarries and shares information and other resources that help raise public awareness.

Stay Safe Facebook page

For more information about Stay Safe please contact Elizabeth Clements at the MPA elizabeth.clements@mineralproducts.org