EIG Guidance - "Picking" – what is the situation now? Introduction



The practice of "picking" which we define as follows:

Selecting items from bulk to make up mixed or lesser quantities for use, further processing or for transport

and which has been a common practice in the explosive industries¹ for many years. It is sometimes called "breaking bulk" and is universally practiced, for obvious good reasons, across the whole of the explosives industry

However HSE have recently regarded this activity, "picking", as a potentially high risk operation which should not be carried out in, or adjacent to an explosive store – but instead in a dedicated "picking room" located away from the store at a distance to be determined by application of ER2014 Class H distances.

NOTE – some of the examples given below relate to the pyrotechnics and fireworks industries – but EIG believe that the same basic practices are widespread throughout the whole explosives industry, albeit to varying degrees and in different forms. We hope that you will find relevance to your sector, particularly in terms of assessing the risks of similar operations.

History

In the late 1990s the then Chief Inspector of Explosives, Alan Duckworth, wrote to the industry following discussions with EIG and others to say that repacking was no longer considered an act of manufacture and, critically, that it was permissible within an explosives store. Obviously this came with the understanding that any such operation would be properly risk assessed and properly managed.

During the development of MSER 2005 this principle was enshrined in the regulations, and as a consequence reference to the Duckworth letter was no longer necessary – or at least that is what industry considered the situation to be.

When ER2014 replaced MSER 2005 the same principles applied.

History of the "Duckworth letter"

EIG was involved with the discussions that led to the Duckworth letter as the original issues were identified at stores at a member company where it was common practice not only to "pick" in a store – but that the store itself was "open shelved" that is to say the fireworks were not in boxes but were on open fronted shelves to facilitate such picking.

Over the years the practices at that company changed first to have shelves with hinged fronts and then to have stacked closed (but critically not sealed) boxes from which to pick. The last of these is common place throughout not only the fireworks industry but the whole explosives industry.

We know of examples of such "picking" all across the industry following discussions at EIG meetings with member companies and elsewhere.

The discussions with Mr Duckworth were quite extensive and revolved, as they should, about minimising the risks to persons and to limit the effects of any unintentional explosion. Mr Duckworth along with other inspectors – including the late Dr Train - visited the site of the company

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¹ Many examples given below relate to the display fireworks industry but are common within all sectors of the explosives industry

involved (and others) and witnessed the operations being carried out that were relevant, and also a true "Packing" operation in a designated Packing Shed where there were multiple open boxes of stock and multiple open cartons into which items were placed to produce firework display "kits".

Given that the "Duckworth letter" is now some 30 years old, and given that industry believed that MSER had continued to allow such operations, and given that some 15 years passed with no seeming need for prosecution or improvement/prohibition notices AND that there is no record on HSE's own database (going back some 150 years) EIG believe and industry believes that provided suitable control measures are in place the act of "picking" in a store is an acceptably low risk operation – and lower risk than some of the alternatives.

Recent legal action taken by HSE

HSE have taken recent legal action against an EIG member company for "picking" and some of what follows in this report is extracted from expert evidence provided.

The full judgement may be found at:

https://www.gov.uk/employment-tribunal-decisions/21cc-group-ltd-v-t-s-reeves-and-hm-inspector-of-health-and-safety-4101412-slash-2020

The judgement contains aspects of the process which do not relate explicitly to the "picking" operation, nevertheless it is useful to see how HSE act in such matters.

The Explosive Regulations 2014

The pertinent regulations within ER2014 are Regulations 26 and, to a lesser extent, Regulation 27.

Regulation 26 of ER2014 states:-

Fire and explosion measures

- 26.—(1) Any person who manufactures or stores explosives must take appropriate measures—
- (a) to prevent fire or explosion;
- (b) to limit the extent of fire or explosion including measures to prevent the spreading of fires and the communication of explosions from one location to another; and
- (c) to protect persons from the effects of fire or explosion.
- (2) For the purposes of paragraph (1), the reference to the manufacture or storage of explosives includes a reference to any handling, on-site transport and testing of explosives which is associated with that manufacture or storage.
- (3) In this regulation, "fire or explosion" means unplanned fire or explosion at the site of manufacture or storage.

HSE assert that although the packing and unpacking of explosives is indeed not "manufacture" it is "processing" and hence should only be carried out away from a place of storage.

In ER2014 Schedule 5 it is stated that

"processing" means the packing, unpacking, re-packing, labelling or testing of explosives or the division of an amount of explosives stored in bulk into smaller amounts and the placing of those smaller amounts into containers; Unfortunately "Processing" does not form part of the definitions in ER 2014 and its use when applied to applying "Separation Distances" is critical.

Regulation 27 of ER2014 states:-

27.—(1) Subject to paragraphs (2) and (3), every person who stores explosives at a site must ensure that the relevant separation distance prescribed by Schedule 5 is maintained between a store and a building or other place to which that Schedule applies.

....(various sub clauses)....

The critical requirement of Regulation 27 is the need to maintain "Separation Distances".

"Separation" distances

A "Separation Distance" is the distance between a place where explosives are present (eg a store or a work building) and other features within the licensed site or outside the licensed site. The actual distances relate to:

- The Hazard Type (HT) of the explosives held
- The quantity of explosives held
- The construction of the building
- The nature of the other feature a road, another explosives store etc

Crucial to an understanding of the introduction of "Processing" in the ER2014 appendices (Specifically Schedule 5) is the rationale by which separation distances are derived and to what they relate.

In the case of the separation distance between a store and a "picking shed" (ie a work building) is the presence of persons in or at the work building on a permanent or semi-permanent place.

Rightly the separation distances are primarily about the safety of people. Separation distances are used between, say:-

- A store and another store (the old so called "Magazine-Magazine" distances)(Class G) an "onsite" distance)
- A store and a place where processing is carried out (so called "Magazine-Process" distances)(Class H) an "onsite" distance. Note that apart from the definition this is the ONLY one of two places "Processing" is referenced in ER2014 and the ONLY one in relation to "onsite" aspects.
- A building holding explosives and roads, buildings etc ("offsite" distances)

Note that in essence the "onsite" distances work in both directions – although in most cases, for simple operations, the determining factor will be from the store as it holds a greater quantity of explosives than the work building. The exception to this may be when the work building holds the highest hazard explosives or operations are considered to be the highest hazard when the quantity in the work building may indeed be the determining factor.

The reason that this distance exists is, primarily, to protect people within the work building should an ignition/explosion occur in the store. This is why the Class H (to process buildings) distance for, say, 20,000kg of HT3 fireworks is 93 metres, whereas the Class G (to stores) distance is only 41 metres. By way of comparison the distance required for up to 50kg of HT1 explosives in a "brick

built mounded store" (Schedule 5 - Table 1) is 9 metres - 50 kg is a reasonable quantity of explosives to be worked on if the operations meant that the explosives should be regarded as HT1.

The issue of people is important. We contend that primarily the Class H distances are to protect OTHER people, and not the ones working in the store. So in the case of "picking" where the SAME people are doing the "picking" whether they do it in the store, or at a remote location, we accept that there is a risk in handling the explosives, but in essence the same risk occurs wherever they do it. Indeed because of the extra handling and movement of explosives we contend that moving the explosives to a remote location may indeed put them at greater risk (see later).

HSE Guidance

The HSE produced guidance for various sectors of the explosives industry, including for firework display operators.

The following are extracts from that guide:-

68 Procedures would be expected to cover all the explosives operations undertaken and include the following activities where appropriate:

- receipt and unloading of deliveries;
- storage of fireworks;
- selecting fireworks for despatch;
- movement of fireworks on site;
- fusing fireworks and preparing fireworks for a display;
- packing or re-packing of transport cartons and selection boxes;
- storage of loads awaiting despatch;
- loading of vehicles and despatch;
- managing returns; and
- management and disposal of damaged or returned stock.

Those in bold above are particularly pertinent. The guide requires **the operator** devises procedures to cover those operations, and, presumably, has carried out a suitable and sufficient assessment of the risks associated with those operations.

The guide does introduce the term "Picking store" (which is not in the Regulations)

89 Fireworks should only be removed from their transport packaging in an appropriate place.

Normally, this will be in a production building, a picking store, or another place where an event involving the fireworks being handled will not communicate directly with fireworks in storage.

picking store a store where part-boxes of particular products commonly used in displays are kept. Picking stores are generally stores holding smaller quantities of different types of fireworks, and limit the hazards associated with picking items that may not be required in units of a complete transit carton.

It is unclear what "smaller" means in the above paragraph. A 2te store is smaller than a 20te store, a 500kg store is smaller than a 2te store. In case of accidental ignition within the store the effect on persons within the store are likely to be the same.

EIG's view is that "generally" implies that it is not mandatory (and given that the term does not appear in the Regulations it should not be) and would mean that the operator can demonstrate that

the use of a "picking" store is unnecessary, or could be a higher risk operation that selecting individual items within a store itself. The risk aspects of this will be addressed later.

Furthermore (our emphasis):-

105 Transport packages should **not be left** opened in storage areas, and should **normally only be opened when access to the fireworks is needed**. After opening, it is important to close the packaging securely if fireworks remain in the package. This can be achieved by taping box flaps down, interleaving the flaps, or securing them in some other way.

106 Professional firework display operators often compile a display by removing a few of each type of firework from boxes held in stock. The outcome is that they will **store part-filled and previously opened boxes** of fireworks. Repeated opening and resealing can lead to wear or damage to flaps, resulting in a box that will not properly close.

107 Where boxes are likely to become damaged because of repeated opening and resealing, alternative measures to resealing the box should be used. These include:

- placing a suitably sized wooden sheet over the flaps;
- keeping part-boxes of fireworks in a picking store in:
- o open transit cartons that have been covered with a suitably-sized wooden sheet;
- o lidded wooden bins; or
- o wooden cubby holes.

NOTE – the equivalent paragraphs are not present in

- Guidance on Regulations Pyrotechnic articles in retail and commercial premises
- Guidance on Regulations Fireworks in retail premises
- Storing and selling shooting supplies safely (INDG477)
- Storing and selling pyrotechnic articles safely (INDG476)
- The Explosives Regulations 2014 Guidance for Shooters and Shooting Sub-Sector (although this does deal with decanting)

Yet all of these operations will include similar "picking".

"Picking" is, however, mentioned in the following HSE produced guidance:-

- Guidance on Regulations Wholesale storage of fireworks (but wrongly refers to displays)
- Guidance on Regulations Professional firework display operators (see below)
- Guidance on Regulations Commercial manufacture and storage of explosive articles and substances

There is also an important distinction here between "closed" and "sealed" boxes. It is unrealistic to expect every part used box within a store to be sealed every time a single article is removed from it. On the other hand it is reasonable (within a store) to close the boxes. However it is also important to understand the reason why boxes should be closed.

However, the guidance acknowledges the following aspects of boxes within stores:-

Transport packages should not be left opened in storage areas... – this implies they may be open for short periods – which is exactly what "picking is".

...should normally only be opened when access to the fireworks is needed... – again this is almost a definition of "picking"!

EIG was heavily involved in the drafting of both MSER 2005 (which had several aborted starts after EA75 was noted for revision in 1983) and ER2014. ER2014 was essentially a tidying up of MSER 2005 and HSE's opinion (and which was stated publicly) was that if one was complying with the requirements of MSER then you would be complying with ER2014 – although in some specific areas this has turned out not to be the case.

We do not believe that there is anyone within HSE Explosives Inspectorate now that was involved in the production of MSER 2005. This is important as, industry believe, MSER incorporated the relevant features of the "Duckworth letter" and did not significantly change industry practice as a result.

The revisions to produce ER2014 did not change the basic provisions that had been incorporated in MSER2005.

It is worth noting that HSE did not raise the issue of picking in firework stores by a circular letter to industry or via the industry bodies – which if they considered it to be a significant issue we would have expected.

The HSE list of Prohibition and Improvement notices under MSER and ER2014 can be searched to see if there are other examples where a "picking" operation has resulted in either a Prohibition or Improvement Notice (see https://resources.hse.gov.uk/notices/search/standard/default.asp) and yet we cannot identify any using the search engine provided.

Further subsector Guidance

The production of subsector guidance was led by HSE. EIG is recognized within the explosives industry as a source of pertinent and achievable guidance. However EIG's involvement in the production of such guidance was limited.

However guidance is only guidance – it is not intended to replace or modify law. It may show ways that industry has achieved a low level of risk IN SPECIFIC SITUATIONS but is not intended to be copied by companies without thought of how they apply it to their own operations.

Examples of Industry practice

On visits to a large variety of explosives sites (including many from the fireworks sector) and in discussions with a wide variety of operations (including explosive manufacture, military pyrotechnic manufacture, commercial pyrotechnic manufacture, and fireworks display and retail companies) that the "picking" operations are routinely carried out.

We know that in recent times HSE inspectors have indeed queried such practices, but have decided that no changes need to take place, or for Improvement of Prohibition Notices to be issued.

A hypothetical incident

Fireworks are not inherently unstable, and a firework article is essentially a sealed device with only, perhaps, a fuse exposed.

It is perfectly possible, in theory, to walk into a firework store and light a match – fireworks do not have a flammable vapour, there is no simple route for the lit match to initiate a fire, which then becomes an explosion.

Of course there are many other possible initiating events that could cause an ignition, but the consequences of any one of those events, if the fire spreads to the fireworks within the store, are essentially the same.

What is critical in preventing or minimizing injuries or fatalities is that the explosive event takes place over the longest possible timescale – both to allow escape or movement of people away from the impending explosion, and to spread the effect of an explosion over an extended period.

In this case, IF AN IGNITION OCCURRED FROM DROPPING A FIREWORK, then the likely train of events is as follows:-

- 1. The operator drops a firework (let us surmise this is a shell)
- 2. Which for some reason (see later) ignites on impact with the ground
- 3. The lifting charge of the shell ignites (it is extremely unlikely that the bursting charge of a shell or the stars contained within a shell would ignite as the shell is designed to be ejected from a mortar with much higher energies)
- 4. There is then a delay (typically 2.5 to 4 seconds) when the fire from the lifting charge ignites the "delay fuse" and the fire is transferred to the bursting charge
- 5. When the bursting charge is ignited it both lights the stars in the shell and causes the case to rupture producing a wide dispersion of lit stars
- 6. These stars could then fall on open boxes, causing ignition of their contents and a repeat of the above
- 7. There is then a "chain reaction" where subsequent bursts ignite many adjacent shells

The important thing is that in step 2 is that the operator will be able to react to the ignition and has several seconds to move out of the container to the door and retreat to a safe place before escalation of the event occurs.

It is also important to appreciate that this is a hypothetical event – the EIDAS database (see later) - HSE's own database of explosive incidents does not appear to have details of any similar incident.

On the basis of assessment of risks it is clear that the three aspects of minimising the consequences (and the likelihood) of an explosive accident – in essence **Prevent, Limit, Protect** (essentially the 3 subclauses of Regulation 26 of ER2014) – can be adequately addressed by a proper understanding of the likelihood, consequences and hence risks involved in the operation, and the derived operating procedures. In the case of picking:-

Prevent – there is no evidence of any incidents involving accidental ignition from the simple operation of taking one explosive article from one box and placing it into another box. The likelihood of an initiating event is thus extremely low. Furthermore, the likelihood of this operation initiating an event does not change wherever the operation is carried out – so the same likelihood (although not ultimate risk) would exist in any "picking" store.

In contrast there have been (rare) reports of accidental ignition when a box of explosives is dropped accidentally or handled inappropriately. In general, of course, the number of handling operations involving explosives should be minimised – and regularly transporting boxes around or between sites with the inevitable increase in handling, would lead to an increase in accidental ignitions.

The EIDAS database entries (see later) do not relate to this "picking" activity so provide no quantification of the likelihood of ignition, except to be able to demonstrate that this is not a common event.

Limit – sensible assessment of risks and derived operating procedures would identify aspects of the operation that would limit the immediate and subsequent consequences of an accidental ignition. Depending on the site and product these could include:-

- Minimising the number of open boxes at any one time for example requiring only the box from which an explosive is being taken from to be open, and other boxes closed
- Ensuring that, for instance, on a site with closely spaced adjacent magazines, that this
 "picking" operation is only carried out in a way that minimises the possibility of
 communication between magazines.

Protect – operating procedures, again following suitable assessment of risks, could include:-

- Keeping escape routes clear
- Minimising the number of people involved in the operation (probably a single person)

Hence a "picking" operation could be considered to address all of these aspects by:-

- Minimised the likelihood of an ignition occurring
- Minimise the effect of the ignition by managing the store well
- Maximised the realistic protection of people by managing the store (and adjacent stores) to allow easy escape and retreat in the time period between ignition and escalation of the event

In this way adequately complying with duties under Regulation 26 of ER2014.

Consideration of risks

It is important that RISK and HAZARD² are distinguished here – risk is a combination of both the hazard (or consequence) of an explosion and the likelihood (or frequency) of that explosion happening. Not only is risk the basis of almost all UK law (and explicitly Health and Safety law made under HSWA) but it recognizes that in a high hazard industry (such as nuclear, chemicals or explosives) a lot of measures that are taken to reduce risks to an acceptable level are as a result of reducing the likelihood of any ignition and subsequent explosion happening. Explosives are undoubtedly hazardous – if the law only related to hazard (and not risk) then no work could feasibly or economically be done with explosive substances or articles.

A low or acceptable risk operation may be carried out because either the likelihood is extremely low, or the hazard is low, or both. A high risk operation may be where either the likelihood or hazard (or certainly where both) are high.

The CHAF trials that have been presented by HSE as evidence only demonstrate the potential HAZARD of fireworks. An analogous situation would be (wrongly) to use an image of the devastation of Hiroshima to say that nuclear power stations are therefore inherently too unsafe to operate.

In dealing with all dangerous goods incidents the most important aspect of overall risk control is to minimize the event happening, and in an explosive situation this generally relates to minimizing the risk of an initiating event (such as a fire). Of course then minimizing the consequences of that ignition is important both in terms of the size of the event (which generally will relate to Hazard Type

² Some use "Consequence" in place of "Hazard" – but I believe these are effectively synonymous depending on one's definition. I will use "Hazard" throughout.

and quantity of explosives involved) and the protection of people. These are the basic tenets of ER2014 Regulation 26.

Managing risks

Any holistic assessment of risks should, of course, compare alternative operational procedures and, again of course, adopt the procedures that minimise the overall risks.

One suggested alternative to the simple operation of "picking" within a magazine is to move each of the individual boxes from which items are to be picked to a remote area (or dedicated packing shed), taking items out of the selected boxes into another box, closing the original boxes and subsequently returning them to the magazine.

As an example take the case of a firework display operator preparing a medium sized display with 500 shells – 5 each of 100 different colours/calibres. If the operator takes one hundred boxes to a "picking" area, or if the one hundred boxes are in this area already, then it is inevitable and sensible that a large number of those boxes will be open to allow sequential "picking" of different displays.

As stated earlier, it must be the case that the risk of ignition from simply taking a shell from one box to another in a "picking shed" is exactly the same as if that operation was carried out in the original magazine. The likelihood of escalation is certainly higher as the number and likely positioning of open boxes is greater if there are 100 boxes. A increased rate of communication also impacts directly on the protection of people – especially if there are open boxes between the exact position of the individual and the exits to the area.

However, to suggest a "picking" areas has only one box in it at any one time is impractical and ultimately likely to be of considerable overall greater risk.

In terms of assessing the potential risks several distinct hypothetical ways of operating may be considered:-

Table 1 - Comparison of hypothetical operating methods to "pick"

	Route 1	Route 2	Route 3	Route 4
Description	"picking" individual items within the existing store	"picking" individual items within an annex to the existing store	Taking individual boxes to some place (or transporting single boxes offsite), "picking" an item and returning the box to the store, collecting another box and so on	Taking a number of boxes to some place (perhaps a designated packing shed) and taking an item from each box in turn, then returning boxes to the store and repeating the process
Quantity of open boxes	Single (+ box being loaded into)	Single (+ box being loaded into)	Single (+ box being loaded into)	Multiple boxes
Quantity of fireworks handled at any one time	A single firework	A single firework	Single boxes of fireworks	Multiple boxes of fireworks

	Route 1	Route 2	Route 3	Route 4
Potential	Dropping the	Dropping the	Dropping a box of	Dropping a box of
ignition	firework	firework	fireworks	fireworks
routes				
	Spontaneous	Spontaneous	Spontaneous	Spontaneous
(examples	ignition	ignition	ignition	ignition
only)				
			Lightning strike in	Lightning strike in
			open air during	open air during
			transport across site	transport across site
			or to an offsite	
			location	
Escalation	After a likely delay	Limited	Ignition of the entire	Ignition of multiple
	spread of fire to		box	boxes
	other boxes			
Other issues	Location and status	Location and status	Route to transport	Route to transport
to be	of adjacent stores	of adjacent stores	box	box
considered				
			Operation in adverse	Operation in adverse
			conditions	conditions
			Escalation of event	
			to other	
			stores/people	
Likely effect	Time available to	Time available to	Potentially in open	Likely rapid
on person	exit store may be	exit annex may be	air – once shells	escalation if multiple
doing work	seconds	seconds	start bursting then	boxes are open
	On an amount on hear	0,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	operator may still be	
	Once operator has left door then route	Once operator has left door then route	in "range" of stars	
	to safety	to safety		
	perpendicular to	perpendicular to		
	store axis is	annex axis is		
	relatively easy	relatively easy		
	Telatively easy	relatively easy		
	Only a single person	Only a single person		
	allowed to work in	allowed to work in		
	one store at any one	one annex at any		
	time.	one time.		
Likely effect	It is likely that the	It is likely that the	This could spread	It is likely that a
on others	effects would be	effects would be	stars to a significant	properly designed
	confined to a single	confined to the	distance and could	packing shed (with
	magazine. Given	annex. Given	impact on other	more than a single
	suitable operating	suitable operating	workers	exit) could be
	procedures (eg to	procedures (eg to		occupied by more
	require other	require other		than one person
	magazines to be	magazines to be		
	shut) then the	shut) then the		
	immediate risk to	immediate risk to		
	others is low	others is low		

We conclude from the information provided that the lowest risk operation is "Route 1" because

- The likelihood of ignition is the lowest
- That the time between ignition and evacuation is sufficient

- That the number of people affected is minimised
- That escalation may or may not occur but once people are "safe" then this is really only a financial matter

It is important to appreciate that the law requires a company to carry out a suitable and sufficient risk assessment. The company is in the best position to analyse and determine in this case:-

- The likelihood (frequency) of an incident occurring in this case both the initiating event and the spread of an ignition to a larger holding of explosives
- The consequences (Hazard) of this initiation and propagation

In this way the overall risk which can crudely be expressed as:-

Risk = Frequency x Hazard

If several different risks are identified in different ways of working it would be wrong to operate under a higher risk regime than a lower risk regime (all other factors being equal). Hence given that it may be the case that "picking" within a store is assessed by the company to pose a lower risk than transporting individual boxes of fireworks to a remote location, taking items out, and then transporting the boxes back to a store they should undoubtedly carry out the operation that way.

Companies can determine this not only on the basis of risk assessment – it does appear that the custom is commonplace and that companies do "pick" on the basis of the knowledge of the definitions of the law and industry custom and practice.

EIDAS

The EIDAS Database (a database of explosive incidents held by HSE) contains the following:-

- EIDAS doesn't have a search term "picking" or even "processing"
- has 65 results for "packing"
- has 134 results for "Storage" and "Fireworks". Early reports are factual and a vast majority
 arose from lit cigarettes or other sources of ignition. There are limited reports of
 "spontaneous ignition". Later reports are more based on media report.
- has 34 results for "Loading/Unloading" including 4 for fireworks or pyrotechnics which backs up (potentially) the assessment that handling full boxes is more likely to cause ignition than handling single fireworks
- has 45 results for "handling" and "Fireworks" none of which seem relevant to "picking"

It can be concluded from this data is that there have been no documented historic incidents on the EIDAS database in stores where a simple "picking" operation has been carried out. This confirms that the likelihood of accidental ignition as extremely low in these circumstances.

We are not aware of any incident where simply "picking" fireworks (or any other explosives) from a single opened box and placing in another box – which HSE might describe as "picking" and which Mr Duckworth considered as "Packing or Unpacking" caused an ignition.

On the other hand there are reported incidents across the world where the dropping of full or partly filled boxes of fireworks or explosives have caused an ignition. This is unsurprising as in this case not only are the boxes heavier and more awkward to manhandle, but there is a possibility of individual articles impacting on each other.

Conclusions

We draw the following conclusions:

- The practice of "picking" is not inherently too unsafe to carry out
- It is commonplace within industry
- There is no evidence from HSE's own databases that the practice has caused incidents in the past
- Properly risk assessing your own operations is essential in determining whether "picking" is appropriate in your circumstances
- Identifying whether there are other ways the operation can be carried out with lower overall risk
- That identified procedures to manage the risks from "picking" are well understood by the workforce and are monitored for compliance etc
- That it would be wrong for HSE to insist on adopting an operating procedure that has been identified as having a higher risk that one that you have identified as having a lower risk

Recommendations and further work

EIG will continue to monitor the situation and receive reports from members to identify if and when HSE try to outlaw the "picking" operation. EIG hope that HSE will engage further in addressing good industry practice and recommendations for minimising risks associated with the "picking" operation.

No one, of course, wants a situation where bad practice leads to incidents, and EIG will continue to produce guidance to help industry where possible to identify, adopt, and monitor best practices that lead to overall risk reduction.

This guide has been produced by the Explosives Industry Group of the Confederation of British Industry.

Advice is given on a practical approach to "picking" and risk assessment for small companies involved in the storage and supply of explosives including fireworks. Medium and larger companies involved in the manufacture, testing, storage, and disposal of explosives generally have developed risk assessment processes designed to meet their particular needs and may seek further advice from other sources.

Risk assessment is the basis of all health and safety legislation which requires 'reasonably practicable' precautions to secure the health and safety of persons likely to be affected by the work activity. Regulation 3 of 'The Management of Health and Safety at Work Regulations 1999 places a specific requirement on employers and the self-employed to make a suitable and sufficient assessment of these risks. All employers are required to assess the risks associated with their various work processes and workplaces in order to establish a safe place of work for both employees and those likely to be affected by the work activities, including visitors, contractors, customers and the general public.

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