GUIDANCE Note

Materials: 15.05.21

Introduction

During the pandemic the industry has stayed open and was specifically and repeatedly directed and praised by the Government for continuing to operate safely within the restrictions. However, there is no doubt the pandemic has caused considerable disruption to the logistics of both construction and facilities management activities.

The resulting slow-down of efficiency and productivity in early 2021 is now indicating that due to a number of factors availability and prices of materials is rapidly escalating. Alongside dealing with the issue of product availability and product marking following Brexit.

According to the ECA led BEBS Survey for Q1 2021, nearly 60% of respondents throughout the engineering services sector expected increased materials costs moving forward into 2021

Key information on the following

This guidance considers the issues and identifies possible safeguards to be considered in understanding and managing the risk, including:

1) Construction Leadership Council and the importance of leadership
2) EU: stats on the true picture for construction materials
3) Post-Brexit product marking
4) Freight charges
5) Supply of materials contracts
6) Client contract
7) Allocation of risk
8) Risk management
9) Record keeping method statements
10) Advanced payment, off-site materials agreements/vesting certificates
11) Stockpiling
12) Free-issue materials
13) Risk in materials
14) Fluctuations and pricing
15) Summary
16) Other information

1. Construction Leadership Council and the importance of collaboration

ECA as a member of the CLC Taskforce is an active contributor to the Construction Leadership Council's activities.

In regard to material shortages the CLC has released a statement here (28th April 2021) from the co-chairs of the Construction Leadership Council's Product Availability working group (Construction Products Association and Builders Merchants Federation):

> *"In general, products are available but lead times have lengthened. Current demand is such that it is proving difficult for manufacturers and suppliers to build up stock levels.*
>
> *Raw material shortages, stemming from global demand and other external factors such as factory closures outside the UK, continue to constrain production of PE and PP plastics, PIR insulation, paints, adhesives and other coatings, and also packaging for other product groups.*
>
> *Global demand also continues to impact prices and delivery times on structural steel, internal steel products and galvanised steel. Evidence suggests that some steel products may suffer continued shortages into the second half of the year.*
>
> *Accurate forecasting can help alleviate availability issues. The CPA's latest forecast was published this week and the BMF will publish their latest forecasts in May.*
>
> *The CLC's key advice is to plan in advance, work closely with your supply chain and communicate your requirements early with suppliers, distributors and builders merchants. Collaborative, ongoing communication throughout the whole supply chain is essential.*
>
> *The Product Availability Group is also exploring further solutions to alleviate other bottle necks in the supply chain such as logistics and transport, including the ability to accept deliveries outside of normal opening hours."*

BEAMA issued a statement on 20th December 2020 to explain that '*the construction industry supply chain in the UK was experiencing greatly extended lead times for steel cable management products'*.

BEAMA further explained on 10th May 2021:

> *The leading UK manufacturing companies of steel cable management (who are also members of BEAMA) previously indicated that they were experiencing severe production capacity restraints caused by deteriorating availability of supplies of the types of steel used in cable management products, from their stockholders who source the raw material globally from the steel producers. This also resulted in increasing steel costs in the supply chain.*
>
> *The lack of raw material, which is a widespread global issue, was initially caused by a dramatic worldwide reduction in the production of steel at mills around the world, during the early part of 2020. This was caused by the effects of the coronavirus pandemic. Since the middle of 2020 demand for the types of steel used in cable management products, together with many other applications, has greatly increased across the world as businesses attempt to recover from the disruption to meet increasing general demand, and to complete unfinished projects.*
>
> *The result was that demand far exceeded supply to an unprecedented degree with a forecast that this would continue well into 2021, and that this supply shortage of essential raw materials would inevitably affect availability of finished products.*
>
> *The current situation is that the availability of steel remains problematic. There are some signs of improvement, but it is likely to be several more months before the situation eases. In addition, increasing steel costs are a continuing effect of the supply issues.*
>
> *Our members who manufacture non-metallic cable management products are also experiencing raw material supply problems which has also led to increasing raw material costs.*

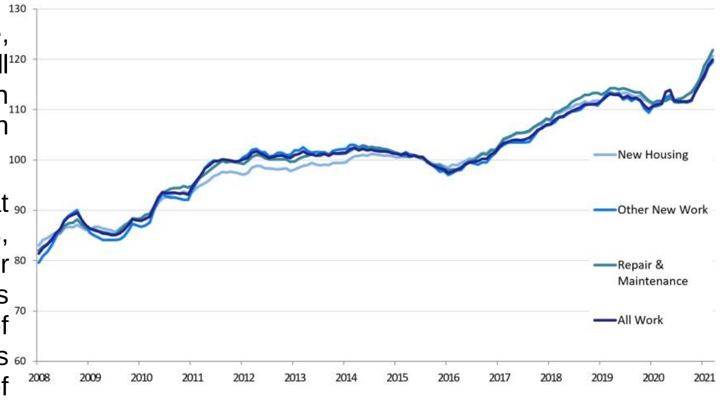
For now the product suppliers (manufacturers and distributors) are essentially indicating that the onus is on their client base (contractors) to manage the risk through; collaborative, accurate planning and lead times as supply cannot presently guarantee availability on a just-in-time basis for conventional product, never mind bespoke product.

Depending on your size and buying power, you may have more bargaining strength than your competitors in your contractual negotiations.

2. EU: Stats on the true picture for construction materials

Looking at the longer-term change, the material price index of 'All Work' increased by 7.8% in March 2021 compared to the same month the previous year.

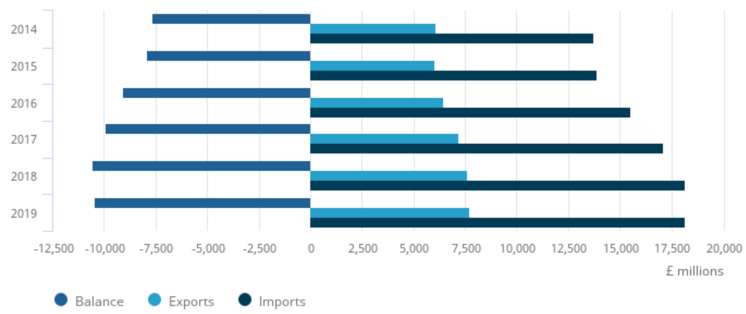
The trade deficit was historically at its smallest throughout the 1990s, with a mean of £309 million over this period. This trade deficit was 24% of the value of imports. As of Quarter 4 2020, the trade deficit is £2,971 million, 62% of the value of imports.



Source: Monthly Statistics of Building Materials and Components, Table 1

Figure 19: The UK trade deficit for construction building materials and components reduced in 2019

The balance of trade in all building materials and components, current prices, UK, 2014 to 2019



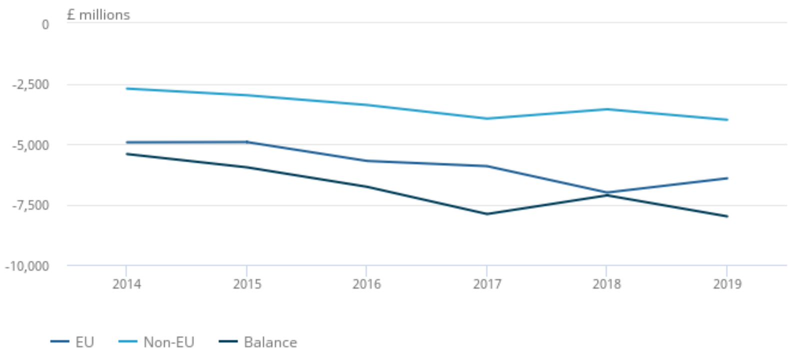
Source: Department for Business, Energy and Ii materials: bulletin, December 2020

According to the January 2021 release by the Government the UK operates a trade deficit for construction building materials and components. This means we import more construction materials and components than we export. Figure 19 shows the trade deficit in construction materials and components was £10,421 million in 2019.

Figure 20 shows the EU and non-EU balance of trade in construction materials and components, showing that a decrease in the trade deficit with EU countries drove the decrease in the overall UK trade deficit in construction materials in 2019. In comparison, the trade deficit with non-EU countries increased by 12.2% in 2019.

Figure 20: The trade deficit widened between the UK and non-EU countries in 2019, whereas the deficit has reduced between the UK and EU countries

The balance of trade in all building materials and components with EU and non-EU countries, current prices, UK, 2014 to 2019



Source: Department for Business, Energy and Industrial Strategy – Table 15 Construction building materials: bulletin, December 2020

Figure 20: The trade deficit widened between the UK and non-EU countries in 2019, whereas the deficit has reduced between the UK and EU countries

Imports of construction materials increased by £56 million (1.26%) in the third quarter of 2018 (to £4,512 million) compared to the previous quarter.

Exports of construction materials increased in the third quarter of 2018 by £52 million (to £1,963 million), a 2.7% increase.

As a result, the trade deficit widened by £4.52 million to £2,550 million in Quarter 3 2018, a decrease of 0.2%.

The trade deficit was historically at its smallest throughout the 1990s, with a mean of £0.3 billion over this period. This trade deficit was 24% of the value of imports. Currently (Quarter 3 2018), the trade deficit is £2,550 million, 57% of the value of imports.

Top-5 Exported Materials	**£ million**	**Top-5 Imported Materials**	**£ million**	The top five exported materials in 2020 accounted for 38% of total construction material exports. The top five imported construction materials in 2020 accounted for 29% of total construction material imports.
Electrical Wires	930	Electrical Wires	1,845	
Paints & Varnishes	685	Lamps & Fittings	859	
Plugs & Sockets	355	Sawn Wood> 6mm thick	816	
Air Conditioning Equipment	331	Linoleum floors and coverings	553	
Lamps & Fittings	324	Air Conditioning Equipment	545	

All Building Materials & Components			**Compared to pre- recession levels in 2007, the share of total UK construction material exports going to the EU has declined from 70% to 57%.**
£ million (% of total trade in italics)	EU	Non-EU	
Imports	9,108	6,715	
	58%	42%	
Exports	3,954	2,933	
	57%	43%	

Top-5 Export Markets	£ million	Top-5 Import Markets	£ million	The top five export markets comprised 51% of total construction materials exports in 2020. The Republic of Ireland remains the largest market, despite having shrunk from a pre- recession peak of 27% of total exports in 2007, to 17% in 2020. The top 5 import markets comprised 47% of total construction materials imports in 2020. 19% of all imports are from China.
Republic of Ireland	1,202	China	2,945	
Germany	680	Germany	2,029	
USA	589	Italy	971	
France	532	Turkey	788	
Netherlands	482	Spain	742	

As the value of imports is more than double the value of exports, construction therefore operates at a trade deficit.

Table 2 shows the top five export and import markets for the UK in 2019. The top five export markets accounted for 51% of total construction materials exports in 2019, with the Republic of Ireland the largest single export market, accounting for 16% of all exports of UK construction materials. The top five import markets accounted for 46% of total construction materials imports in 2019, with

China the single largest source of imports with 18%. Four of the top five UK export and import markets for construction materials in 2019 were European countries.

The engineering services sector is a major importer of materials and while goods not sourced from the EU should be unaffected by the imposition of border controls, it should be recognised too that some manufacturers source from a number of suppliers before combining materials into a single product and then initiating distribution and sales.

The Construction Product's Association notes that recovery in construction around the world, including in the US and China, has put pressure on the global supply of building materials. It said 'costs and lead times have grown for products including paints and varnishes, timber, roofing materials, copper, steel and plastics. It warned that current constraints "will not improve significantly in the next 3-6 months" and may be severe enough to hinder growth

3. Post-Brexit product marking

Government guidance (released September 2020) essentially states that construction products will move from CE marking to UKCA marking during 2021 such that from January 2022 only products approved and tested to UKCA will suffice for UK use.

CE marking will continue to be recognised as the product marking indicating UK regulatory compliance during the whole of 2021.

Any purchaser of equipment should look for the CE mark as they do already and carry out the same due diligence steps to ensure that the manufacturer has made the correct declaration of conformity and has the required technical documentation available.

UKCA has been set up by the Government to eventually replace CE marking as the means to show that products comply with UK regulatory requirements. UKCA marking is allowed to be applied from 2021 but is not a requirement for most products until 2022, when it will be expected to be seen on or with the product. This may initially be either as a permanent marking, as with the CE mark, or as a label on the product or accompanying documentation. The new rules don't apply to Northern Ireland where the CE mark will continue to be the only product compliance marking for the next few years at least. Most products from all sources will continue to have CE marking as well as UKCA even when it comes fully into force.

You may start to see products appearing during 2021 that carry the new UKCA marking, instead of or alongside CE marks.

Following the end of the EU exit transition period on 31/12/2020, there will be three different product marks on products. The rules governing these marks will depend on where the product is intended to be used. The three marks are:

- The EU's marking for product conformity (CE marking)
- The United Kingdom Conformity Assessed Mark (UKCA mark)
- The United Kingdom Northern Ireland (UK NI mark), which is always in addition to the CE mark

As products may be sold and used in Europe and in Great Britain, it will not be uncommon to see more than one set of marking. Below are several scenarios that explain which mark to look for depending on which country you are in.

FROM 1 JANUARY 2021 – 31 DECEMBER 2021

Scenario 1: Site in Great Britain

If your site is located in:	Your site should look for one of these:
	UK CA

	CE + UKNI
	CE

Scenario 2: Site in Northern Ireland

If your site is located in:	Your site should look for one of these:
	CE
	CE + UKNI

<u>FROM 1 JANUARY 2022 ONWAR</u>

Scenario 3: Site in Great Britain

[*]CE mark may appear on its own as goods from Northern Ireland have unfettered access to Great Britain.

If your site is located in:	Your site should look for one of these:
	UKCA
	CE + UKNI

Scenario 4: Site in Northern Ireland

If your site is located in:	Your site should look for one of these:
	CE

	CE + UK NI

As you plan your projects, you will need to factor the additional risk that you have entered into a contract to supply and carry out works in accordance with that contract, i.e. at practical completion the finished installation will need to comply with the contract, including any specifications incorporated into the contract.

There is therefore an inherent risk that the specification compiled prior to contract, may require products which at completion in 2022 are no longer contractually compliant with the CE mark and are not available with the UKCA mark, because there may be a backlog of product testing for UKCA and no or low capacity within testing facilities to get the products UKCA marked.

Contractors would be in the Invidious position of either having to choose whether to not comply with statutory regulations or to not hand over their (otherwise) completed installations to their clients with the consequential contractual pain of either scenario meaning they have breached their contract.

4. Freight charges

World trade, has also been adversely affected by a shortage of the roll-on, roll off type containers. This has pushed the cost of freight up four-fold with the market for new-build container units being controlled to maintain prices and with the by-product that it also controls trade capacity.

The container shortage is also partly a result of the increase in demand for shipping during the pandemic, when online shoppers spent more on home improvements, furniture, and products for their new home offices. The huge volume of PPE and medical supplies passing through the world's ports has also been a contributory factor, as has the fact that container production dipped dramatically at the height of the Covid pandemic, as a result of worker absenteeism at the Chinese factories that turn out the majority of the global container stock.

With blockages still building up in global trade lines, Charlie Walker (head of marketing at leading e-commerce fulfilment and logistics solutions specialist, Walker Logistics) advises any business that relies on imported products from Asia, to order their next consignment much earlier than they normally would, if they want to give themselves the best chance of avoiding critical stock shortages.

> *'The pandemic has resulted in an unusually high demand for goods ordered online. With the logistical bottlenecks affecting imports of products or components from the Far East unlikely to ease until Covid vaccines have been rolled out across the world, UK businesses must reassess their purchasing strategies,' he says.*

This is unlikely to be a short-term problem, for while the bottle-neck created by the blockage of the Suez Canal has just been resolved, the world may not rise above the effects of the pandemic until the end of 2022.

5. Supply of materials contracts

In most instances, contractors open an account with a supplier and place orders on that account against a credit limit and trade (sometime an additional volume) discount.

In those circumstances the contractor will find it has agreed, within the supplier's account registration documentation and on subsequent electronic paperwork, to the supplier's terms and conditions. Even if you've never seen them, you're in a business to business relationship and you've signed-up to them without realising it!

However, there is nothing stopping the contractor from setting out the terms upon which it wishes to place an order and ensuring that those terms adequately protect the contractor for the risks outlined in this guidance.

ECA produces standard terms for the purchase of materials – pro-contractor in order to protect our Members from highly onerous contractual and commercial risks in supply-only contracts. A few of the most prominent issues to consider are:

- When does risk pass – on delivery or payment?
- Is time of delivery fundamental allowing you to cancel and recover loss if the delivery is late or inadequate?
- In the event of defective goods what can I recover? Just the cost of replacement, or also the costs of recovering and replacing the goods within the installation?
- Has the supplier specifically excluded its liability for on-costs?
- What are my cancellation process and what charges will I face?

If you are going to protect your business from the challenges of 2021 and 2022 in respect of materials shortages, you'll have to take a harder-line on the contractual risks to put your business in a position of strength. It is extremely difficult to fight from a position of weakness where you have already signed-up to terms which predominantly favour their risk profile.

6. Client contracts

Contractors are served by three forms of industry standard contracts (discounting oral agreements) those produced by the JCT, by NEC and bespoke agreements – the latter often includes purchase orders or sub-contract order forms incorporating by reference their heavily amended versions of JCT or NEC.

In part this may be true, but it is most probable that the Employer's lawyers have, as well, removed any equivalent protections from the main contract.

There is a high-risk that the default commercial behaviour will be risk-dumping to the next tier of the supply chain, until the lowest point above supply-only.

If as discussed above, supply only typically takes a hard contractual line against their clients on contractual risk for time of delivery and excluding liability for any losses other than product replacement, then it is the lowest tier of supply and install which gets caught in the middle and contractually squeezed.

You are always advised that if agreeing to any contract - even the most superficial order - you:

- Check it doesn't incorporate by reference other documents which you have not seen or checked (*'this order is subject to our terms and conditions, copy available on request/inspection at our office'*)
- If it does incorporate other documents, get copies
- Check the copies to ensure you can meet the risks/obligations contained in them which you are inadvertently agreeing to within the order
- Do your due diligence – specifically with regard to your obligations and right to time and potentially, money if you cannot source the materials required by the contract – which often incorporate the specification.
- Check any risks around product compliance, equal or approved product status and if the products required can be obtained within the planned installation period with eh correct product compliant marking depending on where the project is based.

To get through this period of uncertainty will take proactive planning and project management.

7. Allocation of risk

Historically, the JCT provided for delay against of the imposition of liquidated damages by providing for contractors to cite 'an inability to source labour or materials. Unfortunately, this has long-since dropped by the wayside.

The NEC contract's Compensation Event schedule includes for events that prevent the (sub) contractor from completing the works and which was not preventable and which was judged, even in hindsight, as being low-risk (as far as the likelihood of it occurring, was concerned). The ‘prevention’ clause is generally removed by the Employer’s lawyers but it may be stretching its credulity to cite it for delays to incoming shipments of general materials.

Contractors had problems convincing clients that force majeure (act of God) clauses (and their NEC equivalent) applied under the Covid-19 pandemic, and they will very much struggle to apply them to a materials shortage and consequent rapidly inflating market.

Special, one-off, pieces of equipment, may be subject to such measures but the best course of action is to engage with the contractor and/or the employer at the earliest stage – and by this we may mean before the award of any contracts, to raise the matter with them, to discuss and address how best to limit the projects susceptibility to such risks. Only pre-contract can you proactively acre some kind of risk sharing collaborative arrangement.

Within this dialogue you will have to consider carving out the risk for delays or lack of availability of materials. We accept this may jeopardise your opportunity to be awarded the contract, but the opportunity must be balanced against the risk, profit, and duration of the contract.

Bespoke contracts tend to be those terms which they have procured from their lawyers in order to provide their business with the greatest risk protection, i.e. transfer as much commercial risk as possible downwards. These forms of contract rely on the suppliers never questioning the terms, or necessarily pricing the additional risk of these terms, because of the commercial threat of losing the tender opportunity. The reality is that as you progress closer towards the planned start date, it becomes significantly harder for the client to carry through with any threat of ‘*if you don’t like the terms, you won’t get the job and we’ll go elsewhere’.*

The following is an example of clauses which you may adapt to carve out the risk of specifically identified unpredictable materials within the marketplace – remember that your bargaining strength increases the closer you get to start on site:

> *Unfortunately, due to the implications surrounding the uncertainty of the impact of the materials market on delays and prices of; goods, materials and plant, we are unable to allow our quoted prices to remain open for acceptance for more than the period stated in the relevant quotation.*
>
> *If our quotation/tender submission has expired and you wish to accept our quotation/tender submission (including prices and costs contained therein), you should seek confirmation from us that our original quotation/tender submission and prices quoted continue to remain open for acceptance.*
>
> *Our quotation/tender offer is based on the following:*
>
>> *The Client accepts that items listed in the Contractor’s quote/tender dated [X] represent materials for either the manufacturing process or the complete finished installation/work and which may not be economically sourced by a UKCA marked equal and approved alternative, or due to the Client or Planning Authority prescribing a European material selection which cannot be substituted, these shall be treated as a price variation adjustment at the time these items are ordered, at cost.*
>>
>> *Orders for imported construction materials for either the manufacturing process or the complete finished installation/work will be placed as soon as reasonable by the contractor after award of contract once design is complete, however, in the event of delays in being able to source such materials with the relevant and required UKCA product marking, within a reasonable period and reasonable mitigation measures taken by the contractor, there is an acknowledgement by the client that a potential delay to programme is possible and that this will become a ‘relevant event entitling the Contractor to additional time to complete the installation/works.*
>>
>> *The Contractor shall promptly notify the Client in writing when such an event causes a delay, disruption, or failure in performance and when it ceases to do so.*

You will also want to consider how this works with any rights the client may have to suspend/terminate works, whereby the contractor may be delayed in sourcing the relevant materials or left with materials for a contract which has been terminated.

8. Risk management

Is the software and skill base available for a realistic programme to be monitored and analysed? Gantt or bar charts seldom really demonstrate the link between activities and are very cumbersome when it comes to identifying what is on the critical path.

Subsequent trades may not be experiencing delays in its supply chain deliveries (the risks outlined could equally refer to the resources of specialist sub-subcontractors), but delays occasioned by earlier trades could have significant repercussions on your works.

Contracts which contain delay notification mechanisms and requirements to formally request extensions of time, are becoming increasingly significant to operate including condition precedent clauses that provide a mandatory time-frame for the identification of delay and for its appropriate and timely notification. Non-compliance will mean the contractor is time-barred from making a claim.

Sometimes the window of opportunity, in this respect, can be as little as 7 days; take great care to ensure these clauses can be accommodated and that the (site) staff responsible for the issuing of such notices, are capable and confident in complying with these mandatory terms.

The purposes of such formal notices have been well-established at law; they are there to allow the defaulting party an opportunity to address their exposure and to take any necessary action at the appropriate juncture. The move is away from ratifying delay notices issued three months after the event, even though (it is claimed) ‘both parties knew what was going on’.

Delayed starts, delays caused through how the other trades are working, all need recording although the formal notification procedures will only identify a certain number of causes.

Under JCT the procedure for notification of time (Relevant Events) and costs (Relevant Matters) are very prescriptive in how and what should be included. Whilst, NEC may need Early Warning, Risk Warning and/or Compensation Event, notices to be issued.

The essential issues are to, first, keep forensic contemporaneous record keeping so that you can justify and evidence any claim you may have the right to make. Secondly, operate the contractual machinery in terms of notices and time periods for compliance in order to protect your commercial position.

9. Record-keeping: method statements

Do your method statements genuinely describe what it is that you intend to do, or are they so generic that pointing to them in the event of an instruction to work differently or worse, out of sequence, would be a pointless exercise?

Method statements may be a bind to produce and the Health and Safety departments may have a high jurisdiction over their significance, but they also act as a clear, simple, description of any particulars of work activities, scheduled to demonstrate there was a plan for where and how work was to be undertaken, by how many people and what health and safety measures were going to be required, so the work could be undertaken safely.

Documents not part of the contract but generated afterwards have a lesser significance but the strength lies in their being repeatedly produced with every change being considered as part of a forensic record keeping trail of evidence that can support any contractual claim you may have the right to make. Without evidence you can’t make a claim.

Subsequent divergences become evident and measurable and provided everything that went before is reasonably ‘put’ then clear, unambiguous, contemporaneous evidence is hard to refute.

When a claim is made, that you had to work ‘out of sequence’, the usual rebuttal is; ‘*we never agreed a sequence in the first place*’.

By relating the method statement to the earliest programmes to demonstrate the importance of either your earlier activities, or better yet, the effect of preceding trades, then the picture created as to what was planned and intended is hard to refute.

10. Advanced payment, off-site materials agreements/vesting certification

Some contracts remove a contract's facilities for paying for materials before they arrive on site. Careful vetting of the contract at tender and pre-contract is required to see whether early payment may be available.

Contracts with materials off-site payment clauses do not create an obligation, merely a right for how, if acceptable, the right for the client to pay in advance is managed.

It is important to distinguish between general materials and those that have been manufactured specifically for the project in-hand. Some clients will argue that only those special (large?) items, items that can be clearly identified, labelled, set-aside, insured separately and transported as an item, will be considered as materials-off-site, suitable for early payment.

This is not however the case. Any materials can be the subject of an off-site materials agreement/vesting certificate. The document put in place is in addition to the contract and is a simple exchange of a promise to pay upfront for specified materials, in exchange for which the contractor will purchase those materials within a set timeframe, hold them on trust for the client, marked, identified and insured at an agreed location in the client's name.

ECA has a precedent pro-contractor off-site materials agreement/vesting certificate you can adapt for your use.

It may, however, be prudent to factor in secure storage costs into any risk mitigation plans you are considering.

11. Stockpiling

It is understood that whilst some manufacturer and distributors did prepare for Brexit by stockpiling, the pandemic has since used any such stockpiles up and those parties are not planning to do the same during 2021/22.

Carrying stock and issuing stock requisitions and undertaking some form of materials control isn't out of the question. It will add cost and increase the risk of theft or suffering unplanned an excessive wastage, but the cost may be worth considering for many of the more conventional items which can be allocated on most projects – including the cost of storage.

12. Free-issue materials

One method of mitigating the risk in materials delays and/or shortages would be to get the client to supply the materials - 'free issue' materials.

The engineering services sector is not immune to the client sourcing specified and named equipment to get the benefit of any supplier warranties and the client can then negotiate their own terms and conditions with the wholesalers.

However, commercially this tilts the balance of risk profile that your average contractor usually enjoys. It shifts it away from one where shortfall in recovery of labour can be compensated for by the earnt profit from low-risk routine and major materials purchases.

If profit and risk are related, then in theory, any action to limit the subcontractor's supply by using 'free-issue' materials, should entitle the contractor to review his entire bid.

What is the affect if the contractor asks the client to source the materials and then to free-issue them to site, for his use? An agreement as to how waste is to be accommodated and who is to secure and carry the initial 'risk' is required.

13. Risk in materials

Materials on site tend to be at the subcontractor's risk – yet risk is different to ownership (title).

Under standard form contracts like JCT, title and risk passes when the materials are *fully and finally incorporated into the works*, but this is frequently amended and removed in favour of title passing on delivery, but risk remaining with the sub-contractor until practical completion of the main contract works.

Most amended contract provide that title passes, most often, when the goods pass through the site gates. The insurable risk may not even pass to the Employer and/or contractor once the goods are ‘fully and finally fixed’ and although ‘title’ will then have definitely, irrefutably passed, risk will be retained until the issue of the certification of hand-over (under the NEC) or the Practical Completion documentation (issued under the JCT contracts).

14. Fluctuations and pricing

Tenders/offers should be held open for acceptance for only as long as the quotations for materials remain valid.

An order or offer to undertake work should be met with a slight delay, while the availability of material is further assessed. The implications to the company’s cash-flow position should also be reviewed for excessive deposits or else early procurement activities could easily erode any cash-flow position (cash-flow that may prove invaluable in the event of a supply chain insolvency).

With general Inflation continuing to run at advertised historically low rates, cost inflation brought on by a significant up-turn in work or as the consequence of simple supply and demand economics, this could render ridiculous any comparison between inflation and hikes in prices brought on by the original tender estimating system.

Historically, inflationary rises were monitored by Her Majesty’s Stationary Office -formerly known as the NEDO indices). However, some years ago NEDO was incorporated into the RICS online Building Cost Information Service requiring online subscriptions – other bodies are no longer able to publish this data as it would breach RICS BCIS scription licence terms.

Contractors place orders for (subcontract) services across a wide range of industrial trades. To undertake an exercise where each trade’s resources are separately measured and paid for on a prime cost basis is extremely cumbersome, difficult, and comparatively (for the benefit provided) expensive. This method has become known as the ‘Traditional’ method of fluctuations and it is worth noting as, for specific (again one-off) items of equipment, some form of limited ‘Traditional’ fluctuations may, if both parties see the benefit of sharing the risk, provide an acceptable solution.

The benefit here is protecting the supply chain from insolvency risks whilst retaining a degree of cost control by ensuring the supply offers prices which are not ‘hiked’ to off-set any risk. Hiking prices happens during times of boom but not during times of bust (which ironically is the point, really). The industry agreed that some form of ‘quick’ albeit dirty, method of cost escalation recovery formulae was preferential which is why the ‘NEDO’ indices were produced. NEDO represents a basket of goods relevant to each trade (similar to how RPI is calculated). In a stable but increasing marketplace, there is still value in the use of formula fluctuation provisions.

Assess any tenders, contractual opportunities, or ongoing contracts for the ability to vary prices on the basis of changing materials or tax implications.

JCT

The JCT Standard Building Contract (SBC) and Design and Build Contract (DB) and corresponding sub-contracts provide for three fluctuations options:

- Option A (Contribution, levy and tax fluctuations) — allows the contract sum to be adjusted where contributions, levies or taxes payable in the contractor's capacity as an employer of workers change. In addition, if there is any change to rates of tax or duty payable on materials, goods, electricity, fuels, materials taken from the site, or other solids, liquids or gases used to execute the works, then the contract sum can also be adjusted.

- Option B (Labour and materials cost and tax fluctuations) — this option should be used where the parties have agreed to allow for labour and materials costs and tax fluctuations. If the cost of labour, which includes rates of wages and other expenses including holiday credits (and also contributions, levies and taxes payable as an employer), increases then the contractor is reimbursed. This will only really be applicable in practice - therefore where there are unions involved or other bodies which fix standard rates of wages etc.

- Option C (Formula Adjustment) — this option can be used where the parties agree that the contract sum will be adjusted in accordance with the JCT Formula Rules current at the base date. The Rules set out various formulae which may be applied to different work categories and also clarifies which amounts payable under the contract will not be subject to adjustment. Under the 2011 edition, where fluctuations Option C applies, the quantity surveyor must make an interim valuation before the issue of each interim certificate (clause 4.10.2 of the SBC 2011).

Fluctuations Options A and B also provide for the main contractor to incorporate fluctuations provisions in its sub-contracts (paragraphs A.3 and B.4 respectively).

In the 2011 editions of the contracts Options A, B and C are set out in schedule 7.

The 2016 editions of the contracts only set out Option A (in schedule 7), however the Contract Particulars make it clear that Options B and C can still be utilised, and the 2016 editions of these Options are available on the JCT website.

In both the 2011 and 2016 editions, there is also provision in the Contract Particulars for the parties to specify their own fluctuation or cost adjustment formula.

If no fluctuations option is selected in the 2011/2016 or 2011/2016 contracts then Option A automatically applies.

Clauses provided that fluctuations will be dealt with as provided for in the Schedules, and it was therefore common for schedules of amendments to delete the relevant clause and the whole of the relevant Schedules.

The JCT 2016 does not have an equivalent provision—the election to exclude fluctuations is now made in the Contract Particulars.

If the parties intend to incorporate one of the fluctuations options, they have to include additional details in the Contract Particulars. The relevant percentage addition for Options A and B is to be inserted in the Contract Particulars and for Option C the 'base month' for the Formula Rules will also need to be included along with any non-adjustable element.

If the contractor is in delay in completing the works, where Option A or B applies, there is no price adjustment after completion date (paragraphs A.9.1 and B.10.1 respectively). If Option C is selected, any adjustment made after the intended completion date is made on the same basis of the adjustment as at the completion date, so that the contractor does not benefit from any rise in price after it should have completed the works.

The Intermediate Building Contract 2011/2016 and Minor Works Building Contract 2011/2016 also allow for fluctuations but only for contribution, levy and tax fluctuations (i.e. Option A in the larger contracts).

NEC

The price payable under the NEC3/NEC4 Engineering and Construction Contract can be adjusted for inflation by selecting Option X1 in the secondary option clauses. Option X1 should be selected if the employer agrees to accept the risk of inflation.

This option can only be selected where the parties are using main pricing Option A (priced contract with activity schedule), B (priced contract with bill of quantities), C (target contract with activity schedule) or D (target contract with bill if quantities).

Option X1 is irrelevant to pricing Options E and F (cost reimbursable and management contracts) as the employer already takes the risk of inflation because the current cost payable under those contracts will take account of changes in price since the contract was signed.

Where Option X1 is selected the parties need to insert into the Contract Data:

- the products which will be subject to adjustment (e.g. equipment, plant, fuel, etc)
- the proportion of the total value of the works to be linked to the index for each of the products (which should add up to 1 in total—including any non-adjustable element for which the contractor bears the risk of inflation)
- the base date for the indices
- the identity of the organisation that publishes the indices

To adjust the prices for inflation, the parties calculate a 'price adjustment factor' by applying a formula, in the relevant proportions, using the latest available index before the base date, and the latest available index before the relevant date of assessment (clause X1.1). Clauses X1.3 and

X1.4 in NEC4 cover how the price adjustment is made for Options A/B, and C/D respectively (the equivalent clauses in NEC3 are X1.4 and X1.5).

For any price adjustments after the date that the contractor should have completed the works, the parties use the price adjustment factor calculated at the intended completion date. The contractor therefore takes the risk of inflation where it is in delay (clause X1.2).

Clause X1.5 in NEC4 (X1.3 in NEC3) deals with assessing the defined cost in the event of a compensation event using the price adjustment factor.

Under NEC4, where there is a change in an index that has been used in the price adjustment factor calculation, the calculation is not repeated using the new index—unlike NEC3 which required the calculation to be redone with the new index.

Fluctuations clauses are used in long term contracts to deal with the impact of a change in, for example, costs of supply of labour, materials, changes in regulations, exchange rates, or interest rates.

Where fluctuations clauses are included in a construction contract, the contractor could be entitled to be reimbursed some or all of any additional costs caused by rising prices.

Calculating the increased cost may be achieved by using an index based formula, or by using a published list of market prices for various items.

Due to low rates of inflation in the UK for several years, generally fluctuations provisions have been deleted from the standard forms through bespoke amendments, and it would be unusual to see fluctuations provisions included in contracts for most projects.

15. Summary

It is unlikely this situation is going to improve for the next twelve months. Straying from the usual work streams will affect any ability to move materials around, or to divert materials from low-consequence low risk jobs to those where the consequences of any delay could be expensive.

- Explore facilities for early procurement and secure off-site storage and consider your insurance position (both public liability and contractor's all-risk).
- Consider appointing a materials manager to help both with the buying and with the organisation of material suppliers across the contractor's activities. Be mindful of the obligations you are entering into and avoid contracts where the programme appears too tight.
- Engage with pre-contract discussions and any due-diligence activities that occur to you. In this respect a materials manager will prove invaluable. Seriously consider how you might amend the contract to ensure you don't get *stuck* with the risk of abnormally fluctuating materials prices.

Remember that you are part of a project team and that while you may not be at fault, others may be and you may have to protect your position with formal contract notices. Disruptions caused through shortages, breakages or theft can have a significant effect on your progress and your ability to continue to trade and while some costs may appear extravagant, put against to risk of the imposition of delay damages, the premium costs incurred may not be so disproportionate.

16. Other information

- SPONS
- Contractors – CE & UKCA Marks for 2021 – CLC Guidance
- Manufacturers – CE Marking
- Manufacturers – Construction Products – CLC Guidance
- Manufacturers – Steel Marking
- Manufacturers – UKCA Marking

- Commodity Codes
- Customs Declarations
- Customs Declarations – Delaying Declarations for EU Goods
- EORI Numbers
- Exports – Flowchart
- Exports – Step by Step
- Imports – Flowchart
- Imports – Step by Step
- International Road Haulage
- Northern Ireland
- Operating Model for UK/EU Border
- Support Grant for SMEs
- Trader Support Service
- UK Global Tariff (UKGT)

ECA Excellence in Electrotechnical & Engineering Services

ECA, Rotherwick House, 3 Thomas More Street, St. Katharine's & Wapping, London E1W 1YZ
Tel: 020 7313 4800 **Email**: info@eca.co.uk **www.eca.co.uk**