

## Effective Load Restraint

Graeme Agnew - BlueScope Steel

### Slide 1

#### Angela Juhasz:

Good morning or good afternoon depending on where you're joining us from today and a very warm welcome to everyone. Today we'll be covering Effective Load Restraint and we have a special guest presenter from BlueScope Steel. Now this particular webinar is part of the National Road Safety Partnership Program webinar series and a little bit of information on that for those of you unaware.

The NRSPP has been established to provide a collaborative network for Australian businesses and organisations to help them create a positive road safety culture both internally and externally. It aims to help organisations of all sizes across all sectors to share and build road safety initiatives specific to their own workplace and beyond. It's delivered by ARRB and funded primarily by government coalition and AARB. For more information and more tools like this webinar please refer to the NRSPP website.

Now as I said we've got a very special webinar presenter joining us today and I'll introduce him in one moment.

### Slide 2

My name is Angela Juhasz and I will be your friendly webinar moderator today. If you do experience any issues along the way or you have any questions please feel free to get in touch with me at any time. Now for today's session we've allowed approximately 60 minutes total.

### Slide 3

About 40 minutes of that will be spent on the presentation and we'll be taking questions throughout. So please don't be shy. Get your questions through to us and we'll be happy to deal with those as we go.

We are also recording today's session ladies and gentlemen and so there's no need to take notes. All of the presentation material as well as the recording will be sent to you once the webinar has concluded.

### Slide 4

Now as I mentioned before we welcome questions and discussion and if you would just look over to your control panel you'll notice a 'Questions' box. We ask that you type those in here and I'll make sure that Graeme gets them throughout the presentation and gets back to you on those. Now without any further ado I will introduce our man of the moment. So his name is Graeme Agnew.

### Slide 5

Now Graeme is a Logistics Engineer with BlueScope Steel and he's recognised as a leading expert in the field of load restraint and transport safety in the Australian steel industry having worked or consulted for various companies including BlueScope, Arrium and Stramat. With over 20 years operational and technical experience across manufacturing and transport functions Graeme has developed a practical, hands-on approach to load restraint. He is a Mechanical Engineer and also holds a Masters of Business and Technology through the University of New South Wales. His current role as Logistics Engineer with BlueScope he has been responsible for developing cost-effective and efficient transport safety solutions including the load restraint of a wide variety of loads as well as coaching and mentoring of drivers, loaders, supervisors and managers in their application.

A very warm welcome to you Graeme on this rather cold winter's day here in Melbourne. How are you going today?

**Graeme Agnew:**

Good Angela. How are you?

**Angela Juhasz:**

I am very well thank you and thank you for your time in preparing today's presentation and delivering it for our audience. I'm sure we're all very keen to learn more about the good work of BlueScope Steel and this particular initiative. So I'll hand over to you.

**Graeme Agnew:**

Okay Angela. Absolute pleasure. All right.

**Slide 6**

So firstly I thought I'd just give you a bit of background into who BlueScope Steel are just so you can understand where we come from around this issue of load restraint.

**Slide 7**

Basically we are a global manufacturer and supplier of steel products and solutions. Basically across the world we're in 17 countries employing over 17,000 people. We have more than 50 facilities across the Pacific region and nearly 100 distribution centres just here in Australia and with almost 8,000 people.

As far as that we also operate the largest steelworks in Australia here at Port Kembla which is where I'm based and basically that has an annual production capacity of around about 2.6 million tonnes of crude steel.

I'm sure many people have probably seen some of our brands in the past – things like Colorbond - you'll see those ads on television – and products like Zinalume, Lysaght and in the last 18 months or so we've supplied a couple of other well-known businesses in the Australian steel industry in Fielders and Orrcon Steel. The important part to understand about that is what BlueScope – BlueScope is actually not a transport operator. Basically less than 1% of our transport pass would actually be done on company owned vehicles. So primarily we are a loader, packer, consignor or receiver of goods.

**Slide 8**

One of the things though that has happened in that time is back in about the mid 1990s BlueScope - who was BHP Steel back in those days - realised that securing heavy steel products on trucks was a major risk to its employees, contractors and the community and basically started looking at ways to minimise that risk.

Across the steel industry we have seen a number of serious incidents which have included fatalities and basically that has occurred to both drivers and also other road users as the result of having loads that were incorrectly restrained.

**Slide 9**

BlueScope itself – BlueScope is recognised as a leader in safety within the steel industry worldwide and basically one of the things we do is we manage our high risk activities or what we call 'codes of practice'. These are codes which sit across all our businesses and basically they set out the minimum standards for sites and also our service providers to adhere to. And those high risks include activities such as mobile

equipment, overhead cranes, product storage and load restraint. All up there's about 12 of those codes of practice in our business and as we said load restraint is one of our major risks and has one of those codes of practice attached to it.

### **Slide 10**

All right. So that's just a bit of a background as to – you know - where we come from and why we take this so seriously and that's probably where the real story begins is right now and here as to what is effective load restraint. And look I understand that the BlueScope approach to load restraint is probably not right for every organisation but if you adopt two of the key models that we're going to discuss it's possible to demonstrate compliance. And when I look at what that compliance looks like I regularly ring up people like the regulators to talk about chain of responsibility and they kind of talk about three things. They talk about Information and Instruction, Training and Auditing and I'll go into those in a bit of detail because it is a holistic system that you need in order to manage load restraint.

So if I look firstly at Information and Instruction – you know - we need to make sure that our people - both our employees and contractors - know how the load is to fit on the vehicle, what vehicle and equipment is required to restrain the load and how that restraint equipment must be applied. Secondly we need to ensure that our personnel are trained and competent to complete the tasks that they need to do, and finally the second part is the Auditing section. So do work practices comply with instructions? Are personnel appropriately skilled and is the equipment being maintained?

And generally speaking when I hear the regulators actually talk about compliance with COR requirements such as load restraint that third element, that Auditing phase, that supervision, making sure people are actually complying with those systems is generally the one they say is fairly poorly done. But look the focus of today's webinar is to show you how we manage load restraint using two different models basically and show how that we stop loads from coming off trucks and causing damage to both people and product.

### **Slide 11**

So as I said the thing with BlueScope is that we are not a transport company primarily. We primarily are a consignor and really as far as consigning we have an effective system. Contract management is actually a vital element of that. Transport providers who work for BlueScope steel basically expect to sign up what we call the Australian Steel Industry Logistics Safety Code and that safety code was actually developed by BlueScope and OneSteel and it's actually aligned with the actual National Logistics Safety Code. Basically what that code requires is that contractors and sites that are working for us have evidence that they've met a number of key criteria. So they make sure that they've trained their people, that their load restraint equipment is up to standard, meets the relevant requirements and that they actually have guidelines around how those loads must be restrained on their vehicles.

So what we're basically doing by going through that code and auditing our contractors against that is actually prequalifying those contractors before they actually even come onto site.

### **Slide 12**

So when I talk about the two different models that we use and these are the two real models that you can have in your business. The first one is what I would call a contractor-based system and basically this is where you would go to the contractor and basically get them to develop an engineered load restraint system. So what we do is we say to the contractor "Look you've got some expertise in this. You come to us with a system that meets the legislative requirements for load restraint." We then would review that system and if it's acceptable we would approve it for them to use it. We then would monitor that system through our contracts management process and basically part of that would be our contractors showing us their compliance around quantity and also their compliance around if they've had an incident, how they

actually have managed that and what corrective actions they've actually managed to prevent further breaches from occurring.

From a consignor point of view it is the simplest solution because what we're doing is we're getting them to do the work in the background around developing the system and we are simply monitoring that. However in our experience most of our contractors don't have the engineering resources available to develop an engineered load restraint system. So what we've basically done is in most cases we've adopted what I call the consignor model where basically we have a team of specialised and experienced in-house engineers and basically what we do is we develop guidelines for them based on our knowledge of load restraint and also the different products and basically allow the contractors to adopt those. And as I said in the vast majority of cases that's what happens within our business.

### Slide 13

Okay. So as far as information instruction, I'll talk a little bit about this now.

### Slide 14

So why is it so important to have an engineered load restraint system? So I would compare this to driving down the highway and if I'm going to go over a bridge I want to make sure that when I go over that bridge that somebody has put some due diligence into that. Okay so they've made sure that when they're designing that bridge that they've taken account of the weight of the vehicles going over that bridge, that that bridge can take loading of the wind trying to push it sideways. You don't want to go over that bridge thinking "You know what? The labour on this job was the guy who selected the size and the strength of the metal girders that were going into it." When I drive next to a truck out on the road I want to know that somebody has also put that same bit of due diligence in.

The reality of that though is in most cases the restraint of most loads out on our roads are left up to the driver. And the truth of that is that most drivers basically don't have any training around load restraint or have very limited training and most of them don't understand the principles of load restraint. I'll give you an example of that. A couple of years ago I was training a driver who was new to our business. He came up to me at the end of the session and he said ""I've been driving a truck for 20 years," and he goes "No one before today had actually told me what the legal requirements were for load restraint and so we used to put it up the top of this class." For me that was fairly scary to think that someone could do a job for 20 years and not understand, not know there was a legal requirement for the job they were actually doing.

### Slide 15

All right. So what are the legal requirements? So for people who don't know the legislation around load restraint in Australia comes out of the little book that you see on the right hand side. It's called the National Transport Commission Load Restraint Guide. In that guide it sets out performance standards which the load must be restrained and those performance standards are shown there in that diagram. But to comply with the legislative requirements for road transport here in Australia basically you must restrain 80% of the load in the forwards direction.

So if I had a 10 tonne load I'd have to have the equivalent of eight tonne of restraint. If the percent sideways and rearwards 10 tonne load I would need five tonne of it. Vertically 20%. So 10 tonne load I would need to have two tonne of restraint for... Now that's not as easy as it sounds and to make you understand that a little bit better another example I'll just put out.

I looked at a load once a couple of years ago and I actually went up to the driver and I asked the driver how much restraint did he have on that load. And the driver basically said "It's simple." He said "Up to 10 tonne I need two chains." So I asked the driver how did he work that out and what he said to me was that basically he needed to restrain 80% of the weight forward. So that was eight tonne and basically then two four

tonne chains used in eight tonne of restraint. Unfortunately it's not that simple as you'll see shortly and hence the reason why we need to have an engineered system.

The other requirements that the law also requires as set out in those performance standards that the load should not come dislodged from the vehicle and the load cannot adversely affect the vehicle's stability or weight distribution when it sees one of those forces outlined in...

### Slide 16

#### Graeme Agnew:

So as I said the reality is it's not that simple. The truth is that load restraint is actually a science. Generally speaking the load restraint relies on three mechanisms to prevent the load from moving – the frictional force created by the weight of the load itself, the frictional force created by the clamping force applied by the restraints and the strength of the equipment used to restrain the load either by blocking, containing or attaching it to the load.

### Slide 17

So if I was to look at an engineered load restraint system the way that we would do it and the way that it needs to be done regardless of whether or not you're working on the contractor based model or the consignor based model, you're starting with the NCC Load Restraint Performance Standards and you can see that there over on the left hand side. We then model that particular load and basically put into a model a whole heap of calculations that basically look at all the potential failure modes in that load – things like sliding, toppling and rotating. And then we take those equations and we put it into what we call the load restraint guideline for that product which is then the documentation the driver and the loaders receive.

### Slide 18

What makes this these more complex is that many of the variables used in this calculation are not straightforward either. So its variance has shown us that in a lot of cases the actual load actually works and behaves a lot differently to what we would expect. So what we actually have to do is we actually go off and test those assumptions and to validate them. What we're trying to do here is create a real world situation so that we can verify those assumptions. So the things that we would look at would be the friction between surfaces, the impact of different load configurations, the behaviour of the restraints – stretch in your restraints, the different tensions will that restraint actually tension up and the other thing that we actually look at would be performance and packaging because the packaging as we'll discuss shortly plays a vital role in the actual load restraint.

### Slide 19

Okay. So what we then do is we basically have a number of different types of testing that we do and I've got some photos there on the screen that you can see. I'll talk about these because these are some of the trials that we actually did last year on something that you see quite often out on the road with bulk bags. So you can actually see there where we've got some tilt testing. They're also sometimes referred to as static testing. So if you look at the NCC guideline what they will talk about in that guideline is that you can tilt the load up to a certain angle, you can stimulate a 0.8 or 80% forwards or the 50% sideways. So as I said some bulk bags. I'll show you a little video of some testing we did.

(Mechanical noises from video being played on screen)

So you can see there we did some testing and obviously that was a fail. One of the things that we started to do when we started testing these bulk bags was we found that the coefficient of friction with those bulk

bags on the tip of pallets was actually much lower than what we actually assumed it would be from what we initially were looking at.

So then we took those bags and we actually did what we call some drag test friction tests. You can see there the photo where we've actually put the bulk bag down on the ground. We've got a forklift, connected that up with a chain. So the forklift we had a load cell to then measure the peak force and then we could determine what the actual friction value is.

After doing that we actually were able to get the required friction by actually placing some rubber on the deck and did some more tilt testing. And then we went to what we call dynamic testing. Now dynamic testing is very similar to the crash test dummy type test where we've actually put the load on a truck, run it down a vacant, isolated stretch of road on one of our sites and basically slammed on the brakes and actually measured the stress on the restraint. We have a decelerometer that actually measures the actual deceleration of the actual load.

**Narrator:**

Forty kilometre per hour test.

(Truck braking noise from video being played on screen)

So yeah that's the type – in developing any new load restraint system that's the type of extent you need to go to. So as I said that due diligence type approach.

**Slide 20**

So look it has been fairly technical up to this point. The thing to understand though is when you're dealing with the actual audience that you're catering for so yep - we've done all the technical work. But now I need to do something that the loader and the driver - that they're going to understand. So I need to use the language that they understand and I want to try and cut down on the number of tech and also photos and actually use a diagram. So one of the things is drivers want to be able to look at their load and basically then look at a photo and need to go "Well my load needs to look like that." So if you look at those two photos you actually see that actually occurring.

**Slide 21**

The other thing that our guidelines certainly focus on is what we call Five Fundamentals of Load Restraint. So one of the things that we've actually done is we've done a lot of analysis over the years of our load restraint incidents and what we've found is that the majority of cases you can relate back to one of five fundamental principles - these being packaging, friction, dunnage, no gaps and also the number of restraints. So I'll talk a bit more about each of those.

**Slide 22**

So the first one is Packaging and one of the things that you kind of look at as you go through and actually look at those five fundamentals, actually how many of these actually are the responsibility of the consignor more so than what they are the actual loader. In a lot of cases probably the first four are and certainly packaging will always be the responsibility of the consignor. Okay.

So the packaging – one of the things to understand about it is it must meet the performance standards. It must be able to withstand the 80% and the 20% because it needs to be able to hold that object together as one solid item on the vehicle. Now it's near impossible for a driver to directly restrain the load if the packaging is not right. So what we have in our business is the series of critical procedures for packaging and basically you can see there an example that comes out of our distribution business of small parts. And basically the operators are basically trained and audited against those procedures.

**Slide 23**

As far as fundamental two is friction and really this is the most important of those fundamentals. It is more important than the number of restraints. You want to make sure that if you've got low friction surfaces, things like steel on steel, plastic on plastic, plastic on steel, breaking those up with something like rubber or timber.

**Slide 24**

The third fundamental that we talk about is dunnage. So also the guidelines will spell out things like correct size and type of dunnage and how it must be orientated on the truck. So you can see there over in the cut-out the example of the good and the bad. Okay. We don't want things like rectangular dunnage on its thin edge because it's very easy for that to rock and that creates real problems because it allows the restraints to lift.

**Slide 25**

One of the other things we talk about is how to eliminate gaps. Okay. So you can see there an example. Again the cross for the bad, the tick for the good. If I've got gaps in loads that's going to allow my restraints to loosen and my restraints are ineffective.

**Slide 26**

So as I said a lot of those first four in a lot of cases do come down to the actual consignor, the people actually loading the load. Not always but in a lot of cases that is the case. The one that the drivers definitely have the actual responsibility for is actually making sure they have the number of restraints. So what we try to do here is take out all those complex calculations and do that up front for the driver. And then that driver can read the table for the number of restraints – to actually determine how many restraints he needs. So if you look at that table there it's fairly even. If I was to have 12 tonne of that product I would need to have three chains on that load.

**Slide 27**

So one of the other key things about these guidelines is basically their availability. Basically those guidelines are available to employees and contractors online through a couple of different systems. We also display those guidelines clearly at despatch points. So you can see there there's some photos there of one of our sites and you can actually see those guidelines clearly on display at the weighbridge area there on the slide. Drivers are also required to carry a copy of those guidelines that are relevant to their load within trucks and we actually audit that as part of our audit process.

**Slide 28**

In some cases though we will also take that engineered load restraint system one step further and actually also not only design the guideline or the technical procedure but we'll also have to design some type of equipment to go with it. So why do we do that? Well there's a couple of reasons. Sometimes the restraint can be complicated. So one of the things we try and do whenever we do these things we try and simplify the method of restraint, reduce the number of steps the driver and the loaders have to perform so we can reduce the potential for human error and also increase the efficiency.

When you do that you want to think about things like using systems that block or contain the load because what that will allow you to do is actually reduce the number of restraints required. There's an example there where you can actually see where we've done that. We had an ongoing order for some coils down in Victoria last year and basically what we had to do was because these coils are so narrow and the potential

for them to topple, you could see how we developed the technical document that actually supports this piece of equipment that we actually developed to allow that product to be moved safely.

### Slide 29

Okay. So as I said earlier the guidelines, that information, that instruction part is just the first element. The second element that I want to just go through is our load restraint training. You know – basically regardless of whether or not you adopt either a consignor model or the contractor model we need to make sure that our loaders and our drivers are confident.

### Slide 30

So contractually BlueScope requires that drivers be trained and competent. So all contract drivers are required to do that. We also train our employees as well and why do we do that? Because we want them to recognise high-risk situations and so they're empowered to basically prevent non-compliant loads from leaving site. Our training basically is available both online and face to face. A large focus of that training is actually those five fundamentals that we've spoken about. So you can see there a couple of slides there that actually show the type of things we do - fundamental two – load friction, fundamental three – the dangers of dunnage.

### Slide 31

One of the things we also do with our training is we use a large library of incidents that we've collected over 20 odd years to provide impact and the reasons behind the requirements. So here we have a case here around one of those fundamentals and the role in dunnage, the rectangular dunnage on its thin edge. Basically a driver in this case had that rectangular dunnage on its thin edge. Basically that dunnage rolled when he applied the brakes at a rail crossing and basically it allowed the chains to come forward and basically the load slipped forward into the back of the cab and it crushed that driver. So you can see there that's the type of thing that would really impact.

I recently was training some drivers who were going to start to carry that same product and when I was able to say to them "Look here's a fatality with exactly the same product you are carrying". You can start to see the effect that would have on somebody who needs to get it right.

### Slide 32

One of the other things that we are now doing is also starting to develop training videos to try and show people someone actually doing it. So I'm going to play one of those so you can actually see where we're headed with it.

(Video playing)

*Place the rubber on top of the dunnage...*

*(Forklift)*

*Ensure the coil has not touched the trailer deck or the rack. Place the chains through. Place the polyurethane corners between the chains and the bore. Angled chains should be 800mm of the centre of the coil. Tighten the load binders. There are four different chain configurations based on the chain capacity, rack size and coil width and weight. Consult the load restraint guidelines for further details.*

**Graeme Agnew:**

So that there is just an example. That's one of our shorter ones. There are two different versions of that. There's a long one which goes into a lot of the detail that the driver would have as part of his initial training and that version there is more just for a refresher.

### **Slide 33**

So the different types of training we have both for awareness training and competency based training and that depends on the person's role. For example we've got a sales person in one of our small regional branches. We don't need them to have the same level of detail as the driver or the loader but we also want them to have some understanding of what those high risk situations are. So if they see something out on site they can actually stop that load from going out incorrectly restrained. They may also have a discussion with the customer who's going to pick it up around what the requirements are. So we want them to have some awareness of what the requirements are. But for people like drivers and loaders there are higher requirements which are the competency based requirements.

Basically our drivers are required to complete theoretical tests and basically that is also around some of the stuff we've seen. And basically that then is also tested practically. They are audited by their Supervisor on their first load to actually confirm their practical competency. The record of that competency is then actually put into the driver's passport so that if anyone goes to audit that driver out on site it's very easy to verify whether or not that driver has the right training. That training is then refreshed every three years. So the driver is required to go through that process every three years or if there's a major revision to an actual guideline they also need to do it as well.

### **Slide 34**

The third element of the Effective Load Restraint System is actually monitoring and supervising that system and we do that through our auditing process. As I said earlier this is the one that when I hear the regulators talk it's not very well done but I'll run you through exactly how we do it.

### **Slide 35**

So our contract reviews whether or not it's a contractor based system or a consignment using the contractor consignor model. Basically our contract review process – we regularly meet with the contractors and one of the agenda items on that contract review is actually their load restraint performance. Contractors in that process are required to report on any load restraint failures they have what actions they're taking around those failures and also their audits. And we actually also have commercial penalties in our contracts with our suppliers for any special incidents.

### **Slide 36**

We also monitor loads on an individual basis and we do that through our Load Restraint Audit Program. Basically annually we review our products to determine the risk types. So we put them into a matrix as you see down the bottom and basically we look at what the risk of that product is based on its incident history and also the number of audit failures. Then we rank them either high risk, medium risk or low risk and basically we audit high risk products every 5% of loads, medium risks 3.5% and low risk every 0.5%. And I'll talk a bit more about that in one of the next couple of slides how we also adjust that in one result.

Basically then what we do is we get to site. Then basically depending upon the number of loads that they actually despatch and also what the product risk rating is they actually get an audit target for how many audits they need to complete every month.

### **Slide 37**

Those load restraint audits come in a standard format. They can be accessed either by hard copy or electronically. So the technology is there these days to allow our people to actually complete those using a tablet technology such as an iPad straight directly into the Load Restraint Audit system. What those audits actually do is require checks of those essential requirements for making sure the actual person's been trained, there's no low friction surfaces, that they're following things like correct dunnage practices, the correct type, the number of restraints and that their equipment is in a good condition.

One of the other parts of this as well is it's not just about compliance - it certainly is - but it's also an opportunity to follow up on the driver's training. So often no one talks to the driver about load restraint after he's trained unless somebody does an audit. So it's a good follow up process for us around that and it's also an opportunity for drivers and loaders to get concerns resolved. So there's opportunity there on that form to write any comments the driver might have so that we then process that back through the system and we can then look at any changes that might be needed to the guideline.

### **Slide 38**

Basically we have across Australia about 160 different despatch points and we would complete somewhere in the vicinity of 3,000 to 3,500 load restraint audits across those sites every month. All that information goes into the database and we actually use that database to identify any changes that may be required in the guideline or any training requirements.

A couple of years ago we had an incident that some statistics in our distribution business that said some issues there basically we organised a major intervention with those sites right across the country and basically training up their people and that type of thing so that we could improve their performance. And we actually saw a marked improvement and have since with their performance around load restraint as a result of that and monitoring those strengths.

Across our business we actually target an audit compliance of 95% and if a site does not meet that audit compliance of 95% what we actually do over a three month period if they don't meet that is those actual targets, that 5% of high risk loads would actually get increased to 7.5%. Okay. They'd need to audit 7.5% of high risk loads for the next three months and then we would continue to monitor that and they wouldn't drop back to 5.5% requirement – the normal requirement – until they've had three months consecutively above the 95% compliance.

### **Slide 39**

All right. So the final little section of our presentation today is just about the future. I want to give you some ideas of the type of stuff we're starting to look at as far as load restraints are concerned.

### **Slide 40**

Some of the things that we're starting to do is actually develop and use smart technology. So we're starting to do things like put GoPros on trailers to actually monitor the loads in transit. So give us some more guidance on how they actually behave and that type of thing. We're also using it as a bit of a training tool to allow us to show drivers and loaders different parts of the actual process. And we've also developed what we call a Smart Phone app which we're calling SteelDrive and I'll show you that in a little example over here.

### **Slide 41**

So this is still in development. The actual developers are telling us that it would be available towards the end of November, early December but this is where we're going with it. So this is an app that's being developed for our drivers. So if we've come into a little screen like this as you can see here the name and password and then basically when he comes through he would then come into this section here. And

basically he can then come into here with different locations and you can see here this is my little finger. Pretend that's my little finger on the screen there scrolling through and I click on – it's all touch screen and you can come down here and get to the details of the loading sites, details on the loading sites, that type of thing and also any – now you can click on here.

So as I said some of the data in here is not here yet but you get the idea. The PPE requirements, things around exclusion zones, that type of thing, any requirements on the site, any facilities and also the closest weigh stations and rest stops and petrol stations. If that location was part of the driver's favourites, he also would receive notifications. So for example if that site – the forklift was broken down and we couldn't load for three hours, that's the type of information the driver would get notification of. So it gives us some idea of – it helps us also manage our fatigue management.

The other information – look it's primarily being set up though around load restraint though and you can actually see that basically if I was to click on here the driver then gets his information on the different guidelines. As I click through depending on the product it would tell him how many restraints that he needed to apply.

You can actually down here as well and if I was to click on this one you would get for that product the video similar to what I showed earlier. Alternatively you could come onto here and you would get a hard copy, the whole guideline. As I said the information's not there yet. That's the stuff the developers are doing.

The other part of this as well basically is what we call load capture. So one of the things that we want to do is start to record data from the actual loads and basically two reasons for that – A) you're going to get the driver to actually take a photo of the actual restraint. The reason that we'd do that is so that it's another process.

So it's another thing the driver actually has to look at. So he can't have a lapse in concentration and actually miss something in the process. And also it gives us some record of how the load was actually restrained if there's an issue. If I was to go through this I would pick the different product that I'm doing who I've carried for and then I can click on one of these, take a photo of the load and then there's a limit of eight photos you can actually take. It goes into this here database. The driver then would press 'submit', 'accept' and that then is uploaded to a system. And that stays on that system for a period of 30 days to allow us to review that.

The driver can also see that on his smart phone and basically scroll through and get those details of that particular product.

#### **Slide 42**

Okay. So thank you very much guys for listening today. I hope you've got something out of it and I'll hand back over to Angela.

#### **Angela Juhasz:**

Thank you so much Graeme. That is a brilliant app concept. We have had a couple of questions and I think it was November-December you said that it was ready to be released. Is that right?

#### **Graeme Agnew:**

So the information that I had from the developers last week was that they were looking at late November early December for implementation as the first phase of that.

#### **Angela Juhasz:**

Brilliant. Well I look forward to seeing the final product. It sounds great and thank you so much for taking the time to deliver this session. I'm sure that our audience did get a lot out of it. Now we do have a few questions and unfortunately only 10 minutes remaining in the webinar. So I'll select a few to ask Graeme. So I do apologise if we don't have time to address your question today but Graeme's details as you can see are on there on your screen and we do welcome you to get in touch any time. If you'd like to discuss your queries further I'm sure Graeme will be more than happy to take your call or email.

**Graeme Agnew:**

Yes.

**Angela Juhasz:**

Okay. We've had a question here from Mark. Mark is asking "What are your thoughts on restraining loads using standard alloy gates and 2T web straps over the tops of the gates?"

**Graeme Agnew:**

It depends on the load. In a lot of cases I'd probably say it doesn't meet the requirements but I know of some cases where it can. Different loads are different. I would personally prefer to see those webbings over the actual load rather than go through the gate and actually locks clamping down the actual load rather than relying on those webbings holding the gates in place. It does work in some cases with smaller loads but I'd be certainly concerned about it trying to restrain something like a pallet on a trailer.

**Angela Juhasz:**

Great. Thank you for that question Mark. A question here from John and John's asking "Have you found statements in the Load Restraint Guide that are not in agreement with the BlueScope Load Restraint Guidelines? What approach do you take in dealing with such conflicts given the legal requirements?"

**Graeme Agnew:**

So for us as I said the thing that we do is we actually start with the actual legislation which is the Performance Standard. That's the only part of that actual guideline which is legislation. The rest of that book is just a novel. So all our loads actually comply with those performance standards. So that's our basis to work from and we work from those. The rest of book is just a novel.

**Angela Juhasz:**

All right. Another question here from Mark. "Can I ask why BlueScope has only released the documents as guidelines and have not had them certified to meet the performance standard?" Tricky one.

**Graeme Agnew:**

It is something that we have discussed over the years and it has certainly been – you know. There's been a lot of discussion over that and something that we are still looking at. It's not something that – there's been a decision in the past made that it was potentially we didn't see the real benefit in doing it but there's been – you know. Certainly it's an ongoing discussion. The process to actually certify those guidelines is one step that there's been some discussions in the past with the regulators about. So yeah. So it's still something we are certainly looking at.

**Angela Juhasz:**

Great. Okay. A couple of questions here from David. Now David's asking about getting access to the guidelines and using them in their own training material and he's referred to the videos that you showed

during the presentation as well. So are they available for our audience to access, view and reuse in their own organisations? Or what would you suggest?

**Graeme Agnew:**

So look to start with any of that stuff that we've got is available to people who have agreements with us. So it's not just BlueScope. It's people like OneSteel and Stramat. Those companies that we have agreements with certainly have access to those guidelines as well as any of our carriers that are actually transport providers – people like Toll, KNS who work very closely with us. They also have access to that. So we've developed that and said "We've got an agreement with you guys," or "You guys are working for us and we're going to give you that information." So that's where it is at the moment.

Certainly there's some thoughts about also widening that to allow other people to access them but still there's discussions around that at this point in time. But if people were wanting more information that are outside of that group and they wanted to contact me to discuss that we can certainly have a look at those requests.

**Angela Juhasz:**

All right. No worries at all. Now we have had a couple of questions relating to today's presentation material and recording. So just to reiterate everyone that's participating here today will be sent a copy of the presentation material as well as the recording of today's session. So you'll be able to review that at your leisure, share those with colleagues perhaps. Yeah as I said at any time that's convenient you can have another look at that. So thank you to everyone who sent through questions relating to that.

Look we do have a couple more questions so we might get time for one or two more. I've got a question here from Ian. Ian's asking "Are chains used for this presentation grade 8 and 8mm?"

**Graeme Agnew:**

So all our guidelines that we actually use are 8mm chains that meet the Australian Standard AS4344. All our guidelines are based on those. The only time that we've had to go to chains which are higher than that is when we had to do a guideline for OneSteel around excavators and because some of those were like 60 odd tonne basically we had to go to 10 and 13mm chains. But certainly any of our guidelines the minimum requirement is 8mm chains to AS4344.

**Angela Juhasz:**

Great. Well thank you for that question and I hope we've managed to clarify that for you. If not get in touch with us for a bit more discussion.

All right one final question to finish up our webinar this afternoon or this morning depending on where you're joining us from. The question here from John is "Have you had on-road enforcement people question your guides and if so how would you have dealt with that?"

**Graeme Agnew:**

So in answer to that yes we have. We have and generally speaking there is a fairly good relationship between BlueScope and regulators and we have some of our senior managers are certainly part of the Logistics Safety Council and that type of thing. In fact one of our general managers actually leads up the Safety Committee for Australian Logistics Safety Council. So there's a fairly good working relationship there.

There has been questions about it and there was a case recently but basically what's not – that was raised by an inspector. We challenged that together with others that were in that supply chain and basically that

case was actually dropped before it went to court based on the fact that we had all the engineering to prove that the actual system was compliant.

There is one other little bit to that as well. We are now actually basically adding some additional comments to our guidelines to basically say that they are designed to meet the Australian Load Restraint Performance Standards. That's an additional thing that we're now starting to add to our guidelines as a result of that case.

**Angela Juhasz:**

Great. All right. Well on that I will bid our audience farewell and take this opportunity to thank them once again for joining in today and we really hope that you gained something valuable from today's session. As I said if there's any part of today's session that you'd like to review you will be getting that presentation material shortly. So do keep an eye on your emails.

Graeme a big thank you to you for putting together this presentation and sharing your story with us. It's certainly been insightful for me. So I look forward to that app becoming available as I'm sure many of our audience does also.

**Graeme Agnew:**

Yep. Not a problem. Pleasure.

**Angela Juhasz:**

Thank you once again and we hope you can join us for future webinars.

There will be a short pop-up survey that will pop up on your screen ladies and gentlemen as I close down the webinar. It's just a few short questions and if you could kindly let us know how we went today I'd be very grateful.

Thank you all and hope you can join us next time.

Bye bye.

**[End of Transcript]**