

TRANSCRIPTION:

BUSINESS-SCIENTIST EXCHANGES: MAKING YOUR PROPERTY RESILIENT (PART 2)

Exchange between Anthony Stockman (Businessman in Tewkesbury) and Dr Jessica Lamond (Building Resilience Specialist at the University of the West of England, Bristol)

Jessica Lamond: One of the things that's happening in development of flood-prevention products is nano-technology, which is being used to actually form an impermeable barrier to the water, but allow the substances and the materials to breathe. So, that's something that's coming up and ...

Anthony Stockman: That sounds good.

Jessica Lamond: Those are in development and that would be interesting to see whether, if you were ever to try them on your building whether they would be better than your industrial paints that you are using now. I'm looking at your floor here, for example. Concrete floor is one of the things that's recommended often within a domestic building.

Anthony Stockman: The floor is dead easy to clean if it's painted, but paint has its downsides: you've got to scrub the floor to clean it; it needs to be super-level; and you'll see that it hasn't actually been painted for a while. We used to do this every year, but then - unless you really scrape the top surface - most of the industrial paints aren't that good. So we have a new plan and this is an interlocking plastic covering, which we can fix in place and that is very durable. All you have to do then (all we did in the past was we got our steam cleaner out), to get rid of the oil we just used the steam cleaner and we blasted it out of the place. My problem with industrial paints and any thin covering is that, in a workshop like this, somebody will take a front suspension off (which weighs a lot) and drop it and it takes chunks out of the floor. With these plastic matt coatings (they are roughly a quarter of an inch thick), they are impact-absorbent, so less damage is done. If you do damage one of these tiles, they are hooked together like a jigsaw, so you just simply lift a tile out and replace it with another one. So the maintenance is simple and it is very easy to clean.

Jessica Lamond: Are you thinking of having them down all the time or are you thinking of fitting them in the flood?

Anthony Stockman: No, all the time to cover the entire floor area. When we alter the building and change all the lifts around, we'll cover the entire floor area with it. That's the plan, but it's a lot easier to do it when you've got the lifts out of the way. You can bolt lifts down on top of it, that's not an issue. Ideally, we need to ... but, even if we don't bolt the lifts down and we fit the tiles around it, if we then replace the lift with another one, all you do is take out the adjacent panels and fill that area back in again. It's very straight forward and it's quite cost effective. We could do this

building in its entirety for about £3,500 - £4,000, [to] cover the entire floor. That would be pretty useful and it looks nice.

The first thing we've got to do is to lift all the oil barrels out of the way, because they create an awful lot of problems. If they tip over and empty their contents all over the floor and, of course, because the water is not flowing, as gradually the levels go down, what sits on top of the water? The oil. And that's the last thing to leave the building. In fact, it doesn't leave the building. When we came in after the 2007 floods (when we *finally* were able to get into the building) it was like walking on ice, it really was (like walking on ice, with slippery rubber shoes). You had to be so careful and you certainly wouldn't have wanted to fall over in two inches of solid slurry!

Jessica Lamond: Yes, it's really important for anyone that's thinking about water-proofing or flood-proofing their site to think about what they've got on site that might contaminate the water and also what kind of debris there might be created by other things on the site. You say you've tethered your containers in order to avoid them becoming debris or becoming a natural moving hazard to your building.

Anthony Stockman: They would do a lot of damage.

Jessica Lamond: They *would* do a lot of damage and that's often something that people forget.

Anthony Stockman: Well, the one ... we only had one in 2007 and, the one on the right hand side, where the only thing that tethered it was the power cable going into it (which was a reinforced power cable, with a steel liner, so it was quite good as an anchor chain). The only thing is, it floated on top of a vehicle that was parked next to it, and when the tide went out, it settled on top of it ...crushing the vehicle. It weighs about 2.5 tons, but it had 12 motorcycles in there.

Jessica Lamond: Which just shows the power of water that it can lift that container with 12 motorcycles in it and, even if you're going to protect your building itself, often you'll find that you forget about the things that are outside.

Anthony Stockman: Our waste oil tank, which is out there (250 gallons of waste oil), was in the middle of that field. That had travelled 100 yards. Fortunately, it stayed upright, which was a miracle!

Right, if we go through here, outside, we'll take a look at this. This is one of our waste oil storage tanks (we have two). This particular one was three quarters full. Because the water level was about where my hand is, it decided to go for a fly and it floated over to roughly where that horse is in the field over there. Fortunately, it stayed upright, otherwise we would have had major contamination problems. We were able to go in there with a JCB with a forklift, pick it up, bring it back and put it back, but it could have tipped over and caused an environmental disaster. So, what we've now decided to do is to tether these to the ground with ground anchors. It's quite easy to do, they simply drill into the ground like an enormous corkscrew and we just tie them in place and, once that is done, it can't lift.