Ottawa Light Rail Commission

Stephen Lennerton
on Thursday, May 19, 2022

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OTTAWA LIGHT RAIL COMMISSION

ATU LOCAL 279/ALSTOM - STEPHEN LENNERTON

MAY 19, 2022

--- Held via Zoom Videoconferencing, with all participants attending remotely, on the 19th day of May, 2022, 3:00 p.m. to 6:31 p.m.

COMMISSION COUNSEL:

Emily Young, Litigation Counsel Member
Fraser Harland, Litigation Counsel Member

PARTICIPANTS:

Stephen Lennerton, Alstom
Jaime Lefebvre, Jewitt McLuckie & Associates LLP

ALSO PRESENT:

Joanne Lawrence, Stenographer/Transcriptionist
Benjamin Bilgen, Virtual Technician

-- Upon commencing at 3:00 p.m.

EMILY YOUNG: So I'll just start today by giving a brief introduction about the purpose and parameters of the interview.

STEPHEN LENNERTON: Uh-huh.

EMILY YOUNG: The purpose of today's interview is to obtain your evidence, under oath or solemn declaration, for use at the Commission's public hearings. This will be a collaborative interview such that my co-counsel, Mr. Harland, may intervene to ask certain questions. If time permits, your counsel may also ask follow-up questions at the end of the interview.

STEPHEN LENNERTON: Uh-huh.

EMILY YOUNG: The interview is being transcribed, and the Commission intends to enter this transcript into evidence at the Commission's public hearings. Either at the hearings or by way of procedural order before the hearings commence.

The transcript will be posted to the Commission's public website along with any corrections made to it after it is entered into evidence. The transcript, along with any corrections later made to it, will be shared with the Commission's participants and their counsel on

a confidential basis before being entered into evidence. You will be given the opportunity to review your transcript and correct any typos or other errors before the transcript is shared with the participants or entered into evidence.

STEPHEN LENNERTON: Okay.

EMILY YOUNG: Any non-typographical corrections made will be appended at the end of the transcript.

STEPHEN LENNERTON: Okay.

EMILY YOUNG: Pursuant to Section 33 (6) of the Public Inquiries Act 2009:

> "A witness at an inquiry shall be deemed to have objected to answer any question asked him or her upon the ground that his or her answer may tend to incriminate the witness or may tend to establish his or her liability to civil proceedings at the instance of the Crown or of any person, and no answer given by a witness at an inquiry shall be used or be receivable in evidence against him or her in any trial or other proceedings against him or her

thereafter taking place, other than a prosecution for perjury in giving such evidence."

As required by Section 33(7) of that Act, you are hereby advised that you have the right to object to answer any question under Section 5 of the Canada Evidence Act.

And the last thing is that if you need a break at any point, just let us know and we'll take one. But we usually try to take one about halfway through, so for this interview, that will be around 4:30.

STEPHEN LENNERTON: Okay.

EMILY YOUNG: So to start, Mr. Lennerton, could you briefly describe your educational and professional background for us.

STEPHEN LENNERTON: Well, education-wise, I just have high school. But experience-wise and my background, I've been in a lot of construction situations; I did a lot of telecommunications; I have a very strong mechanical background and, more specifically, in hydraulics, which is what led me to work at Alstom.

Other than that, it's pretty much like I'm a -- you show me it once and I get it done kind

of thing, so that's how I go about my jobs.

EMILY YOUNG: And at a fairly high level for now, could you tell us how you were involved in Stage 1 of the Ottawa LRT project.

STEPHEN LENNERTON: When you say "Stage 1," are you referring to the production part of it?

EMILY YOUNG: Referring to the construction process of the Confederation Line and as well as the opening and operations of that line as well. As opposed to the extension.

STEPHEN LENNERTON: Okay. So -- okay. So I started off in production approximately a year to a year and a half into when the project had started. I started out as a production technician, which was a very general job statement. I had a pretty -- I ended up being in a pretty specific position, which still fell under production technician.

I just started off working on connectors and stuff until I learned the train. And then once I was able to show that I had a very strong mechanical background and hydraulic background, I was put into working on the trains once they were finished and they were being turned

on and we needed to make sure that they were working and all the mechanical things that needed to be done in order for it to be able to go for a dynamic test was what my primary focus was.

EMILY YOUNG: And those roles were both for Alstom?

STEPHEN LENNERTON: So -- well, so that's -- in production, that's kind of, like, a grey area. So production brought in a company called Randstad, which is basically like a third-party hiring company. This was basically like they were there to be the ones that give care to us kind of thing. Like a -- from a union point, like, when they come in, they try to figure out who gives care to the actual employee to see who's responsible for them.

So there was a middle man between us, so I actually worked for a company called Randstad, but everything I wore, all my identification, everything I did, all the rules I followed were for Alstom. So that's pretty much how that relationship worked. Like, I would go to Randstad for a complaint, and they were to apply it to Alstom that that actually happened. Never did I actually -- it wasn't until I was in maintenance

that I was officially an Alstom employee.

EMILY YOUNG: And when you were working for Randstad on construction of the vehicles, were you receiving instructions from Alstom to do your work?

STEPHEN LENNERTON: Yes. Everything came -- all the micros came from Alstom's engineering team. Pretty much anything to do with the train itself was from Alstom. The only time where Randstad would really step in was, like, HR concerns, let's say, or if there were, you know, attendance issues and stuff like that.

EMILY YOUNG: And when, Mr. Lennerton, you talked about working on the trains when they were finished to prepare them for dynamic testing, would that be considered the static testing phase?

STEPHEN LENNERTON: So yeah, they would have, like, a static test where the train would be turned on, we'd test all the electronics, and while they were doing that, I was getting basically the -- like, the gear boxes ready. So the bogies didn't come to us complete, so my production part was to install all of the gear boxes, the calipers, the HPUs, all the fixings that go with it to connect everything. And then I would actually make

them function, so I would have to flush them and insert -- like, put the hydraulic fluid into it, make sure they were all functioning. That was more of my production side of it, and then the actual function part of it was where I would do some static testing, where it was basically visually seeing that it's functioning properly and relaying that information to the test team so that they could confirm that they were safe to actually go out on the track and not have brake issues.

EMILY YOUNG: Okay. And can you tell us -- you said you started in production about a year to a year and a half after the project started. Would that have been 2014? Do you remember the year?

STEPHEN LENNERTON: No. It would have been, like -- well, maybe it's a little bit longer than that. I'm terrible with time. I'm pretty sure it's around 2017, 2018 is when I joined.

EMILY YOUNG: Okay. And at what point did you switch to the role where you were doing -- involved in the static testing?

STEPHEN LENNERTON: So it -- how do I explain that? I never actually changed roles. Like, my job title never changed. So Randstad

controlled that, as in everybody was, like, equal, so everybody had the same job description. It was just that I was put at a different part of the production process where I didn't sit at a table and install wiring harnesses to the roof or anything like that. The train was always constructed or finished being put together when I started to actually work on it.

So it was more or less like I went into that position because it was -- at the time that I was there, it was their weakest point. Like, they were -- they were behind the most in that point. And because I have such a strong ability to do it, they placed me there, and that's where I stayed. I was actually on a team called the retrofit team, if that makes it a little bit clearer. Still under a production technician job title to the -- like, for instance, to the labour board or something like that, but I was on a team, a retrofit team.

EMILY YOUNG: And you mentioned that you were joining it when you were -- when -- and, sorry, to help with the weakest point that was behind.

STEPHEN LENNERTON: Yeah. I wanted to make a really big, positive impact. I was tired of

listening to it on the radio, like, failing, so I wanted to do what I could to help there, and I was extremely interested in these machines. They had never been built anywhere else in the world, and so the opportunity to pioneer the things that I got to pioneer was very, very interesting to me and exciting - a lot of learning, a lot of learning with that whole project. So that's what really intrigued me.

EMILY YOUNG: And do you know why that part was far behind?

STEPHEN LENNERTON: Well, the willingness to do it, really. The job that I was doing was extremely physically demanding, so when you're being paid the amount that we were paid at the time, it was very difficult to get somebody who was, you know, in their early 20s to actually be motivated enough to push our pace so that we could actually keep up with things.

So, for example, when I got there, to put -- on a single unit, to put all of the things that I told you on the train, it took three people 2 and a half weeks, roughly, to do it, which meant we couldn't sell the train until it was done, so that would take 2 and a half weeks per train. And

I was able to complete it in 5 days, so that bumped us up to being able to sell a train every 5 days, which is what pushed us to actually meet the deadlines that we were falling back on. I actually caught up with the production team over an 8-week period. I was able to beat a team of approximately 100 people just by myself, which was also extremely fun, and it made it a challenge in the shop for everyone. Like, everyone wanted to beat me, so it was fun.

EMILY YOUNG: And when did you transition from that role into the role where you were directly working for Alstom? And it sounds like you were working for Alstom maintenance?

STEPHEN LENNERTON: Yes, so I joined the MVT team, which was the carrot at the end of the stick, so to speak, for the production -- in production. So the entire thing of production, we were told at the end of this, you would get this MVT team, so approximately -- I think it was, like, in July -- I can't even remember the dates off the top of my head right now. I'm pretty sure I submitted that information. But it was a couple of months after they had -- or actually it would have been almost a year after they had actually started

hiring people for it, but there was this dormant time before the trains were actually handed over. So the maintenance people that were hired just actually basically sat there and did computer things, like -- what would you call it? Like, where they learn about, like, management behaviour and, like, their behaviour and stuff like that in the workplace. So I was held back -- I willingly stayed back from that hiring procedure to finish things that needed to be done in production before I switched over. I don't know if that directly answers the question or not. Sorry.

EMILY YOUNG: No, it -- that helps a lot. It sounds like you would have, I assume, switched over around when service was starting.

STEPHEN LENNERTON: Yeah. It was much closer to that because my -- my skill set was required right up basically until the last day. So I was approached by two people from the validation team who asked me, you know, if you want to, you can be hired to maintenance right now - I would have been number 3 or 4 in seniority at the time - and then they said, or we would really love your help with this brake project, which is going to take approximately 2 months, and I willingly said I

will help you with it because that's, at that point, what I was there to do. I didn't want to have unfinished work. And to be honest with you, if I didn't do it, we would have had even more problems into maintenance, and I thought I'm not going to set myself up for a headache, so I agreed to it.

EMILY YOUNG: Right.

FRASER HARLAND: Just for the record, to jump in, you mentioned MBT [sic]. Can you tell us what --

STEPHEN LENNERTON: MVT, yeah.

FRASER HARLAND: And can you tell us what that stands for?

STEPHEN LENNERTON: It's maintenance vehicle technician.

EMILY YOUNG: Thank you. And how long did you stay in that role as a maintenance vehicle technician?

STEPHEN LENNERTON: I want to say, like, close to 2 years. It's hard for me to give an exact time. I don't really remember dates very well. And the way that I left was not exactly, like -- it was an -- like, as a -- it was a really negative way that left. Like, I was basically

pushed out the door, in my own opinion, so it wasn't exactly something that I try to remember all the time.

EMILY YOUNG: That's fair enough. Do you remember, like, the year?

STEPHEN LENNERTON: Well, it would have been approximately a year ago from now. I've been over -- a little over a year I've been away from there. I just -- I personally have no physical record of that date, so I don't want to necessarily want to say a date because I can't give you an exact one.

EMILY YOUNG: That's fine. That's no problem. And you're a member of ATU Local 279?

STEPHEN LENNERTON: I was at the time. I'm no longer a member of that. After -- a year after you leave, you are no longer a member.

EMILY YOUNG: And that union -- correct me if I'm wrong on anything here. That union represents OC Transpo operators?

STEPHEN LENNERTON: On the bus side, yes. I believe -- from the information I was given, I'm pretty sure they represent all the city bus drivers, yeah, for OC Transpo.

EMILY YOUNG: And do you know if they

represent any other OC Transpo workers?

STEPHEN LENNERTON: Not to my knowledge, no.

EMILY YOUNG: And obviously they represent at least some Alstom workers?

STEPHEN LENNERTON: Yes, specifically the MVT team. And I -- I'm not 100 percent sure, but I think there may be other entities there that they have, but I was not made aware of that. But I know for sure that the specific MVT team, which I'm assuming is approximately around 18 people, is who they represent.

EMILY YOUNG: But they don't represent -- or they didn't represent the production technicians?

STEPHEN LENNERTON: No. We didn't have a union at the time. At the very end of production, people in production actually contacted a union and tried to make it a union, and now -- in Toronto now, from what I understand, they are unionized, as far as I've been told, due to the process that's been going on.

EMILY YOUNG: Would that be in the facility in Brampton?

STEPHEN LENNERTON: I believe so, yes.

That was where they were trying to get a lot of people -- I was requested to go there and stuff like that, so I think that's the one.

EMILY YOUNG: And when you were a part of the union, what was your involvement with the union like?

STEPHEN LENNERTON: The union was awesome. I was actually -- just before I left, like, the day that I went into resign, Jason actually contacted me, and he was in the process of setting me up to be shop steward. So they were very interested in me being able to help out in that aspect due to the problems that we were having with management at the time.

EMILY YOUNG: And who is Jason?

STEPHEN LENNERTON: Jason would be my union rep, I believe is his proper title.

EMILY YOUNG: Do you remember his last name?

STEPHEN LENNERTON: Not off the top of my head, no, sorry.

EMILY YOUNG: Okay. No problem. Maybe your counsel can come back to us on that point.

And I'll just note, for the record, that Ms. Lefebvre is nodding her head.

STEPHEN LENNERTON: I'm sure she knows his last name. She's aware of him too from -- from when we have spoken previously.

EMILY YOUNG: We can't hear you, Ms. Lefebvre. I'm not sure if something is going on with your mic. Okay.

Mr. Lennerton, do you remember when Alstom workers joined the union?

STEPHEN LENNERTON: In production or in the maintenance part?

EMILY YOUNG: Your MVT team.

STEPHEN LENNERTON: It was always in -- that was from Day 1, so that agreement was made prior to even hiring anyone. So they -- it was always known that we were going to be a part of this union. I think it has to do with the fact that the trains are technically owned by OC Transpo or the City in some way, so they were automatically already going to take part in that.

EMILY YOUNG: Okay. And would the MVT team have been its own separate bargaining unit?

STEPHEN LENNERTON: I don't know. That's too in depth in the -- this. I wouldn't have cared to pay attention to that. I was more worried about working on the trains.

EMILY YOUNG: And so you mentioned that it was always known that the MVT team would join the union, but it sounds like it wasn't always known for all Alstom workers. Can you speak a little bit about why other Alstom workers wanted to join the union.

STEPHEN LENNERTON: Well, in production it was a different union, not the local one with Jason, and they wanted to join just because a lot of people on the floor felt they were being very mistreated by what was going on. One of the biggest issues there was our pay. Randstad took almost $10 over the top of our pay, so every hour you worked, you're paying somebody that's not really doing much of anything for you, so they would get pretty upset about it.

There was a lot of people that looked at the now instead of the future. I was more focussed on getting to maintenance, which was the career thing, so I didn't really care what they were paying me at the time. I just knew that I needed to make these trains work so that I could have a job later.

EMILY YOUNG: Okay. And why did you end up resigning from the maintenance team?

STEPHEN LENNERTON: Well, that's a big question. There was a lot of stuff. Morals was one of them, but I was very badly deceived by Alstom at the very end by the operations manager and the vehicle maintenance manager. One of the biggest deceptions was is they actually -- how do I explain this quickly? There's a flush cart that we use to make the brakes work, and this flush cart did not come assembled for us to be able to attach it to the train, so they had requested me to do it because I had previously done this type of work to another flush cart that was in production. Under the union rules, I'm not supposed to work on machinery that's used on the train. Somebody that's technically qualified for that should.

So I had contacted Jason and asked them, you know, they're asking me to do this; am I allowed to do it? I'm a stickler for rules. I follow the rules. So Jason said no, that's not your job. I could observe and give information to somebody else to do it, but I wasn't allowed to physically do the job. So when the manager contacted me and asked me to go over and do it, I said, well, the union is saying no, and I am 100 percent willing to do it, but you have to speak

to the union. The union has to give permission.

He then went and contacted the union almost right away, from what I remember. And later -- I think it was either the next day or the day after or my next shift, sorry, and he told me that the union had said it was okay to do it, so I willingly went over to do it. It was something I was very interested in and wanted to do. I went over there and did the job.

And then later on, I found out from Jason that he had not given permission to the manager for me to do that and that they had lied to me, and then now I had done something against my union technically. Not that the union was upset with me or willing to take any action against me, but I was very, very upset that I had been tricked into breaking the rules, especially with also being -- you know, Alstom is very big on having to follow the rules, and then they broke them.

And then to compile on that, the other -- the maintenance vehicle manager had contacted me for overtime, telling me that I needed to come in to change calipers and to flush them. This would be task-specific overtime, meaning he's able to skip the people ahead of me in -- in

seniority and ask me specifically because, at this time, I was the only one in the building that could do this. And I willingly said yes, I will come in on my day off, and I will do this for you, because I was always doing favors for them.

And when I got there, they decided this was no longer going to be done, and that I was going to go to a different task, which was to fix the sanding injectors, which was not task-specific. So I made a statement to the management that by the rules of my union and to be fair to my union members, you need to go back and call number 1 and then call number 2. And then if they keep refusing until you get to me, then I will either oblige or continue or whatever.

I was responded to with I don't get to make the rules, I don't get to make these decisions. Voices started to be raised, a lot of aggressive mannerisms towards me. I was told that I didn't do enough overtime in comparison with the other MVTs. I expressed that I had worked here for many years and there were people that hadn't even worked regular hours that even competed with my overtime yet. Obviously this didn't go over well.

In that room, the other manager who had

lied to me who I just found out about lying decided to come in and start yelling at me as well, which is why I then informed him that I was aware that he too has lied to me. And at this point, when you had worked for a company that hard and had built such a loyal work relationship with them and you were as invested as I was, like, in all aspects to this project, that was crushing to me. Like, that really, really, really affected me. It made it basically impossible for me to basically return and stand in front of these people.

So at that point, I immediately went out and requested 2 weeks of vacation that I had. They granted it immediately, and when I came back, I put my resignation in. It was so bad that I wasn't even able to finish that day. I was so frustrated with the place, and I felt so betrayed that I just left. And that was it.

I did -- actually, sorry, I did have an HR meeting within that, this -- I believe it was the same day that the incident happened, but I actually spoke with Alex L'Homme and the HR lady - which I can't remember her name at this time - about the incident. And their mannerisms in there showed me that they didn't care about my situation

and that they were just there to protect their manager. They were more concerned that other people were going to find out that he had lied instead of actually correcting the problem, which showed me that, you know, the future there was not really bright. So I decided to leave.

EMILY YOUNG: Thank you for telling us about that. Other than -- you mentioned that there was a -- a significant issue with pay when you were back in construction, and Randstad was taking quite a bit of your salary. Were there any other --

STEPHEN LENNERTON: That was the -- that was the agreement, though -- sorry to interrupt. That was the agreement, though. So I don't -- I don't want it to be depicted as they were stealing or anything. They were taking what was rightfully -- I signed a contract that I agreed to the terms. This was why I really didn't have a problem with it. If you had an issue, then you can quit. You know, nobody's forcing you to work there. But just to make that clear, that they weren't -- they weren't taking something that wasn't theirs. It was part of the agreement.

EMILY YOUNG: Were there any other issues that the workers on the construction side

were concerned about, that were motivating them to want to unionize?

STEPHEN LENNERTON: The fact that their jobs were ending, that was one. Most of it was just money-driven, and unfortunately, at the time, the gentleman that had actually made contact, they were actually being somewhat fooled by the union. The union obviously wanted to get in there and expand themselves. It was some sort of food union. I can't remember the name of it, but they were trying to get a lot more members.

I do a lot of research when I get approached, and I looked up some of the stuff and I noticed that they were small, so they wanted to jump onboard with this. This was a big project. So they were saying, you know, you should be making $30 an hour and all this kind of stuff, and when you're only making $18 and somebody tells you that, you know, it's pretty motivating for a younger fellow to, you know, go after something like that. And they also -- there was a little bit of, like -- there were some quarrels between certain people and the management, and it was almost as though there was a little bit of a revenge thing in there. They wanted to take away the power that they had to --

you know, with their -- like, withhold them from making the amount that they felt they should make.

EMILY YOUNG: Do you think that the membership of the MVT workers in the union had any impact on the project and operations?

STEPHEN LENNERTON: You mean, like, to the quality of the machine, or?

EMILY YOUNG: Any impact that you can think of - I mean work environment, quality.

STEPHEN LENNERTON: Well, so for me personally, one of the things that I noticed - and this was definitely something that other people noticed - was being in that union group and not having the supervisors and the management in the union group, it posed a barrier between us. So basically the supervisor's job is to launch every train every day to avoid penalties, and it's pushed so much on them that it's almost to the point of at any cost, whereas in the union, I'm there to be treated a certain way, I'm there to do my job properly, and I'm there to follow these -- these rules and instructions. So it created this -- like, they wanted more control to force us to do more things, but the union stood in the way of them being able to do that. So the union was looked at

more as a barrier more by these managers as opposed to something that they would be willing to work with, if that makes -- if that makes more sense.

EMILY YOUNG: That does make sense. And so the people who were in charge of getting the trains out every day were managers?

STEPHEN LENNERTON: Yeah, supervisors and stuff like that. The MVT's job is to literally go and inspect the train. Unless we're doing a maintenance thing to it -- like, say, at 150,000 kilometres, you do a 150K check. But, for instance, if we were doing an inspection and you found something wrong with the train, we were to report it.

We had a different classification of reporting it. You had a P1, P2, P3, and a P4. P1 stops the train from going out on the track until it's fixed and the file is closed. So when you go to a manager who's got 11 trains total, and he has to launch 11 trains, which is the agreement at the time, and you tell him one of those trains now can't go out, this is -- you know, he knows he's going to hear it from his boss. Like, you know, there's penalties, and they -- you know, whatever they go through behind the scenes to the point

where they would actually manipulate what was in there so that the train could go out.

They would tell MVTs to, you know, where rewrite their inspection, or they would just go on the computer and override your authority and bump it from a P1 to a P2 so they could launch the train. And then once the train was out there, it would have a fault, and then they would say, oh, look, it happened on the track, and this would avoid those penalties of not launching the train.

EMILY YOUNG: So there was a lot of pressure to launch all the trains in the morning?

STEPHEN LENNERTON: Yes. And in that instance, when you're making those reports -- for instance, I'll use sanders as a problem. If you found more than two sanders that were not working in your daily inspection, those trains could not go out until those were fixed.

So there were numerous times where you would -- I would bring a report back and say I found six of them, and they would literally crumple up the piece of paper and tell me to write it again and only write down two sanders. And I would tell them, you know, that's not happening; like, I don't break rules like that. That's a safety feature on

the train for braking. You could overshoot your landing. So I was not willing to do that, which is what created more turmoil between us and the management.

EMILY YOUNG: And how would management generally respond to you if you refused to change your report, let's say --

STEPHEN LENNERTON: They would -- they would definitely get upset with me and express to me that I'm being ridiculous and why don't I just listen to them. Like, they're my boss; you're supposed to listen to me. And in my opinion, like, I have this vast experience with these trains, and this person has just shown up, and they're telling me to break rules that have been embedded in my brain for the last couple of years that I had been working in production.

So there would be, you know, I'm your boss; I'm telling you what to do; do it. And I would say, you're telling me to do something that's wrong; I refuse to do it. But the thing is because they were wrong, they would never take it any further. And I don't know how they would get around it after that, but I personally always refused. I know that there are some MVTs that

complied out of fear for their job and stuff. There were a lot of times where people were told they were going to be fired if they didn't comply. So there was -- some of the people who had come here from, let's say, another country who were unaware of how our rules worked, that would alarm them because maybe in their country that could be done to them, but here they didn't understand that it couldn't. So it would make them make decisions under the wrong type of pressure.

EMILY YOUNG: And did you ever see trains that you had classified as having a P1 issue, you would have said this shouldn't go out based on the rules, going out after you had made that report?

STEPHEN LENNERTON: Absolutely, yep. That was actually not -- that was actually more common than it should be. I actually --

EMILY YOUNG: And do you know what happened?

STEPHEN LENNERTON: As for a specific instance, there was a supervisor named Fakah (phonetic), who actually had worked in production prior. I had found a brake failure issue. It wasn't technically a brake failure. It

was a leak in the hydraulic line, which if you lose too much hydraulic fluid, this train stops. So I had reported this, and I had made a P1 for it, and he went into the system and changed it to a P2 and launched the train. And then later on, that -- like, shortly after it was launched, it had a brake failure and came back.

EMILY YOUNG: And if a -- a supervisor or manager had gone in to change your classification, was there anything that you could do about that?

STEPHEN LENNERTON: No.

EMILY YOUNG: And --

STEPHEN LENNERTON: I mean, actually, sorry, I could make another report. Like, I could go into the system and make another P1 order, but he could then just do the same thing again. I mean, as far as I know, they could erase it as well. They could completely remove it from the system, as far as I know. I didn't know too much about their end, but it seemed as though they could because stuff was very well hidden.

EMILY YOUNG: And was this type of approach present from the start of service, or is it something that developed later?

STEPHEN LENNERTON: Oh, yes, more at the beginning than it was later on. So, like, for instance, I used the sanders as an example because they were a very big problem on the train. At the very beginning, almost all the sanders wouldn't work, especially when wintertime came. They're not really -- they don't really function very well in the winter. So when wintertime came, there was a lot of trains who -- that shouldn't be going out because of these sanders, and there was a lot of changes that were made in order to launch the trains. There were some nights, to be completely honest with you, that -- there was probably maybe three, four units that should have actually been allowed to go out in the entire fleet, and we still launched the entire fleet.

EMILY YOUNG: And how many trains were in the entire fleet at that point?

STEPHEN LENNERTON: That were -- well, so we built -- oh, my goodness. I don't remember these numbers now. What train did I stop building? I think we stopped building at Train 36. I'm pretty sure there's 17 -- no, there's 15 to 17 total units.

Sorry, in production, I built them as

single units, so once they coupled them together, that scrambled me for numbers, but I believe it's between 15 to 17 working units. The agreement was that we would launch 15. When we were unable to obtain that number, I believe the agreement was changed to 11, and that's what we went off of.

EMILY YOUNG: So, Mr. Lennerton, are you aware of the original plan for where the train would be constructed?

STEPHEN LENNERTON: Well, I knew the first train was constructed somewhere in the States, and then it was transported up here, and that was supposed to be, like, a guideline for us to build the trains after that. That was the original train set 1. That train did not go into service, as far as I can remember.

But that was the only other location that I knew of that the trains would be built. And then, obviously, we built them in the facility we were in.

EMILY YOUNG: And then we touched on this a bit more. It sounds like there was a -- a change to move assembly of the trains to Brampton for the Stage 2 trains.

STEPHEN LENNERTON: Yes.

EMILY YOUNG: Do you know why that decision was made?

STEPHEN LENNERTON: I believe because the facility that we have now would not be able to facilitate all the way up to 72 single units, because I -- I know the whole number was 72 single-unit trains were going to be built for the entire project. I believe the rest of them actually go into the Phase 2 part is when they're supposed to be released. So there would be no way for us to facilitate maintenance plus construction of the trains, so that's why they needed to move.

I believe that date was actually bumped up, and they moved a little bit sooner than they had planned. And I -- I can't attest to necessarily what that exact reason was, but there was a lot of things said about the fact that the union was trying to come in and take over that they were -- it was kind of an attempt to stop that.

EMILY YOUNG: And do you think that that decision, that move of production to Brampton, was helpful?

STEPHEN LENNERTON: Yes and no. It was -- it was because right now you'd be a lot worse off in the -- with the facility you have now

because it would be overloaded, but in that process, the people who had been building the trains for the time duration already were the most experienced people in the entire world on these trains, and they got rid of most of them, so the majority of the people in that new facility are literally starting from scratch again. So in a way, that would create a learning curve that would have a negative impact on the project. But at the same time, there were a handful of people that went from production and moved to Brampton to take on positions to help out with this. Like, they -- it was almost like they got to be promoted type of thing.

EMILY YOUNG: Do you think that the MSF facility in Ottawa was suitable for train assembly?

STEPHEN LENNERTON: Not even close. Not even close. The second facility that was built, when you put a train inside of it, you can't even open the side skirts on the train to work on the train. So they have pillars that were built, and they're approximately, like, 3 inches off the side of the train. So when you pull the train in, I'd say about 50 percent of the side skirts that you would open to actually access the mechanics on

the train are unaccessible, to -- for one.

The other facility is not too bad. It has four bays, so you could have four single units or two coupled units in it, so that was a little bit better. But in my personal opinion, with the amount of trains we have, only being able to facilitate two coupled units in a building, with the amount of failures that are happening, it's just not going to keep up. There's just not enough people and not enough room to work on all of them.

FRASER HARLAND: Can you help us understand what you mean by "a second facility"? So we know there's the MSF. Was there an additional facility built beside that?

STEPHEN LENNERTON: Yes. So MSF 1 is where production took place, and then MSF 2 is the building that was built -- if you're looking at where the shed is where they actually park the trains, it's just a little bit behind that, almost connected to that building. That facility was -- oh, I can't even -- I don't remember when they started building that or if the building was already there and they put things inside of it, but that was to be the MSF 2. That was originally supposed to be where all the MVTs worked the whole

time. That was supposed to be specifically for the MVT team, from what I was told. And then obviously only being able to facilitate one train in there to work on in a bay and then having the wheel lathe -- like, they can't -- again, can't really keep up with the amount of things they needed to do. So we were moved back to MSF 1 after production had completely left and then that is where we remain, for the most part.

So MSF 2 is mostly used for lathing the wheels. If they need to remove bogies, they have a jack system there that they can do it in. And then there's obviously the bay where they can pull the train in and work on it where it has an overhead catenary system to be able to power the train.

EMILY YOUNG: So MSF 1 is where the construction would have been taking place for phase 1, or assembly?

STEPHEN LENNERTON: Yes. Yes.

EMILY YOUNG: Okay. And did you think that MSF 1 was a suitable place for that work to be happening?

STEPHEN LENNERTON: Well, it definitely wasn't designed for that, but I have to tip my hat to the management team in production: They

definitely made that facility work as best they could for that situation. It was tight, but it -- we got the job done in that facility. I wouldn't say that it hindered us to the point of failure. It was not ideal, but it wasn't the most worst thing ever.

EMILY YOUNG: And how could you tell that it hadn't been designed for that purpose?

STEPHEN LENNERTON: It's not necessarily that I was -- like, I could -- well, room, so to speak, but also just that was what we were being told by management. You know, why -- you'd say, Why are we having this issue? Well, the building wasn't built for this, so we're trying to do this. Also the fact that they had to come in and, you know, put things -- like, bolt things to the ground to make it -- so that we could use that area as a station and stuff like that showed that the facility wasn't there, ready to flip chassises over and that kind of thing.

EMILY YOUNG: Are you aware of any issues that Alstom encountered in gaining access to the MSF when it wanted access?

STEPHEN LENNERTON: To which MSF? MSF 1?

EMILY YOUNG: MSF 1, yes.

STEPHEN LENNERTON: Not -- not to my knowledge. I had full access of the entire building. Alstom went anywhere they wanted in there. The only time there was any restriction to access is if there was a safety issue.

So for instance, if the OCS went down, they may barricade, for safety purposes, a certain area so that they could fix the problem safely, with the people who were qualified to do it. But by way of saying, like, Alstom, you can't use this facility, I never really experienced that.

EMILY YOUNG: Was there any delay in Alstom being able to use the MSF?

STEPHEN LENNERTON: Not to my knowledge, no.

EMILY YOUNG: Okay.

STEPHEN LENNERTON: Not to my knowledge, no. Maybe in the beginning, but I don't have any knowledge of that. I didn't come in until later, when we had full access.

EMILY YOUNG: So our understanding is that the train, the Citadis Spirit, relied on modular technology, which meant that in the MSF, it was only final assembly being done there; is that

right?

STEPHEN LENNERTON: The entire construction of the train was done there. So it would literally come in with a chassis, and you would start putting all your hydraulic parts on in the first station. So they'd flip the chassis upside down, put all your piping in, put all your brackets on to hold all your wiring harnesses and, you know, the HPU trays and that kind of stuff.

And then they would float that to the next station, and they would put more wiring harnesses on. And then it would go to ASO 2, which is where we would put, you know, the walls on, actually attached the nose -- or not the -- yeah, attached the nose of the car to LMC 1 or LMC 2. And then that would be -- and then it would go to the next stage and have the interiors put in.

And then it would go to a -- another static testing place where they would run power through the wiring harnesses to make sure that the wiring harnesses were sound and not shorting out or anything like that. And then it would go to ASO 5, which is where they would actually put the car onto the bogie and then we would couple the cars together. And then it would go to another static

test, which was more of a -- it was a static test because the train wasn't moving, but it was a live test because, at this point, the train would be turned on.

FRASER HARLAND: Just to clarify that a little bit more. I mean, I understand that things like the walls and the roof, these were welded and assembled elsewhere and came to the shop to then be sort of bolted --

STEPHEN LENNERTON: Put together, yeah.

FRASER HARLAND: Is that a fair description of how --

STEPHEN LENNERTON: Yeah. Like, the chassis would be all welded and everything in a solid unit. The walls would be put together and the components and then the -- those small components that were welded would, then, be bolted together by the technicians, and that's how it would be constructed. So yes, I would say that's a fair assessment, yeah.

FRASER HARLAND: Is it fair to say there was a -- and this isn't to diminish the hard work that you did in any way, but there was perhaps a slightly less specialized knowledge required or -- and specialized tooling required because you

wouldn't have had, you know, welding, painting, various things like that? It was much more sort of bolting pieces together? Just to help us understand that.

STEPHEN LENNERTON: So the painting level was just on a repair thing. So if something got scratched, they had a painter that could fix a scratch. But by way of, like, painting the red and the white onto them, no, as far as I know, there weren't there. We didn't have any spray booths or anything like that. By way of specialty tools, we did have speciality tools. Obviously not to do welding - we weren't actually allowed to have open fire in the building, so the welding was done at a different facility.

And yes, you are correct. A lot of the things were bolting pieces together. On the actual production floor itself before it actually made it to the static test stage, there was a lot of putting zip ties on and just kind of bolting things together, bolting pipes together, and getting the windows in and stuff like that. And then once you got to the static test, where the test team and I would take over, that's when you got into more specialized things concerning hydraulics or

concerning the electronics of the train.

EMILY YOUNG: Do you know where the various parts of the train that were being assembled in the MSF were coming from? Like, where were they built?

STEPHEN LENNERTON: I don't know every single one, but I know, for instance, like, Faiveley and Wabtec, who -- so Faiveley, at the time, owned the calipers, and -- sorry, created the calipers. And Wabtec manufactured the HPUs. And I know those came from, like -- for instance, the HPUs came from, like, South Carolina. I know a lot of engineering was done there. Just -- my memory might not pose too well. I believe the windows came from either Turkey or Israel, and I -- the only reason I remember that is because a gentleman came to help us with it, and he was a very interesting person.

And then other than that, Sorel is where our bogies came in from, which is a place in Montreal, where they were getting their ports from I'm not sure. I know a lot of pieces came from France and Europe places. A lot of people came from parts of Europe. Whenever, you know, a specific engineer was requested to come in to give

specific insight on something, a lot of it was from Europe. There's a -- there's only a few parts of the train that are, like, we would call them American parts, so the pantograph and then the HPUs and the calipers are the ones I remember for sure.

FRASER HARLAND: In your experience on the project, did you notice any of these particular parts causing challenges for construction or failing during construction?

STEPHEN LENNERTON: Oh, yeah. Oh, yeah. So specifically to the calipers, the Revision 1 caliper that we have -- so right now, you have a Revision 2 caliper. The first ones had a 50 to 70 percent failure ratio. So I'd install 14 of them, and at minimum, I'd change 5, sometimes even cycling through them, like, one after another. In some cases, I could literally physically look at the caliper and know that it was not going to work, due to, like, defects in the manufacturing.

EMILY YOUNG: Do you know --

FRASER HARLAND: Did -- sorry, Emily. Did they move to what you called Rev 2 as a result of those issues? Is that --

STEPHEN LENNERTON: Yes, that was -- so the calipers specifically, it was -- very early on,

we knew we were getting a second set of calipers because it had been determined very early on that these were not going to be sufficient - not due to the manufacturing; it was actually due to the cycle number. So those calipers are expected to do -- I can't remember the exact number, but for the sake of the conversation, they needed to be able to do roughly 3.5 million cycles before needing maintenance done to them, and the ones we had originally would only do roughly 2 million before they needed it, so it wasn't going to meet the requirements of the kilometres versus the maintenance needed. It wouldn't -- the lifetime wouldn't last long enough. So that was one of the major things they changed, but the failure rate pushed that to happen faster.

FRASER HARLAND: And so were those used temporarily and then they would have been swapped out during --

STEPHEN LENNERTON: Yeah, yeah. So at one point, eventually -- once we had proven that we had -- that they were a failure, Wabtec was then required to come in with a team of people and change them all because I was not going to do that myself. They actually brought in, like, a bunch of

people to do that because it was very overwhelming to change the entire fleet as fast as they wanted it to be. And because it was the fault of Wabtec that we had proven the failures to be done, they were under contract made to do it.

FRASER HARLAND: Were there any other parts that stand out to you in terms of challenges or failures, other than the calipers?

STEPHEN LENNERTON: The HPU, that went through a numerous amount of retrofits in order to be compatible with them. Some of those updates, I will admit, changed due to the change of the caliper, so that was proper, I would say. I know the CVS causes a lot of problems computer-wise. I'm not -- I'm very sound on the mechanics. I'm not so sound on the electronics. So just by talking to colleagues, I knew the CVS was an issue, which is one of the computer components on the top.

There was -- the same idea with the air compressor happened, so there was issues with the air compressor, and that was changed to another revision, so we had changed out the majority of those.

I'm trying to think what else. I mean, mostly some of the electronics. But really those

would have been the ones that stood out the most. Like, I was changing calipers left, right, and centre, like it was a never-ending thing.

EMILY YOUNG: Do you recall whether Wabtec would have been a new supplier for Alstom?

STEPHEN LENNERTON: As far as I knew, Wabtec was there the entire time. The only thing that happened that I know with Wabtec is -- so for instance, Wabtec and Faiveley were almost the same company, and so Faiveley owned the calipers and Wabtec owned the HPUs, and at some point, between the two of them, Wabtec bought Faiveley, and everything became Wabtec.

EMILY YOUNG: Do you know whether Alstom had worked with Wabtec on any projects other than the Ottawa project?

STEPHEN LENNERTON: So there are trains in Toronto, I believe, that are running which have HPUs and calipers that are also provided from Wabtec.

EMILY YOUNG: Do you know if there are any other of the suppliers that Alstom was using that were new suppliers for them?

STEPHEN LENNERTON: Not that I can say 100 percent for sure.

EMILY YOUNG: Do you remember whether there were any supply chain issues that Alstom had?

STEPHEN LENNERTON: Yeah, lots. Lots.

EMILY YOUNG: Can you speak a bit about those?

STEPHEN LENNERTON: Well, at one point, the States closed the border -- or -- I can't remember the incident that happened, but they closed the border, and that set us back quite a bit. Some of the supply chain issues were that because parts were -- so they -- how do I say this quickly? They do -- they have, like, a skeleton-type production thing. So there's only one part for each thing. So when they have a part that breaks, they have to go to the next set of parts for the next train and take from there, and then they order down the line and bump everything up. So because there were so many failure rates, the manufacturers weren't really even able to keep up.

So for instance, like, with Sorel, we needed bogies so badly and so fast that they couldn't send them to us with gearboxes on them and, you know, a gearbox shaft and have it connected to the motor and the calipers and

everything else that goes with them. So it wasn't necessarily the fault of Alstom that we weren't getting them, but definitely some of the failure rates contributed to why we didn't have part.

We actually -- we actually changed to -- train set 8 was my parts train. I had full permission to take anything that I needed from that train, which is still sitting in the shed with a lot of stuff missing.

EMILY YOUNG: And -- and I would guess that the result of those failures and having to sort of cannibalize other trains is probably delay?

STEPHEN LENNERTON: Yeah. It would cause -- it would cause some of the delays, for sure. That was a lot of the stuff that they talked about in the radio and stuff like that, like, people outside that would make comments that they knew nothing of -- about.

EMILY YOUNG: Did you feel that you had appropriate tooling available in the MSF to do the assembly work?

STEPHEN LENNERTON: In production, yes, I had every tool I wanted. If I -- I could walk up to Thomas, who was the director at the time, and I'd say I need this, and within 4 hours I'd have

it. Like, they jumped when I needed tools. I know that the -- in production, there were some times where tools were lost by employees very quickly, and the company was a lot less -- or a lot more reluctant to provide them again right away due to the -- to expenditures. But for me personally, I had it.

Now, in maintenance, that's a totally different story. I didn't have anything I needed. I had begged for tools for the entire time that I had been there, and I was never given them. So for instance, like, when we started in maintenance, they bought a Snap-on toolbox, and the -- Hussein, the maintenance vehicle manager, he bought one set of wrenches, gear wrench or a Snap-on, and it went from 6-mil to 19-mil, and that basically covered maybe, you know, 40 percent of the sizes on the train. And obviously you had to explain to them that nuts have, like, a bolt and a nut setup have a nut side and then the bolt side, so you'd actually need two wrenches in order to turn it. So they were very, very lacking on the tools needed to work on it.

There was also this stigma that we were not going to touch the trains as MVTs until the

warranty was all done, but obviously that's not the case.

FRASER HARLAND: May be a silly question, but, I mean, where did the tools from the construction phase go? Why weren't you able to --

STEPHEN LENNERTON: To Brampton.

FRASER HARLAND: Oh, okay. They --

STEPHEN LENNERTON: So even though production and maintenance was Alstom, they weren't helping each other. So for instance, all the information I had to build the train, all the micros I memorized in production, they never transferred those to them. It was almost like they wanted to recreate these instructions. Because now that they -- they had thought, well, those are production instructions, and we're not producing the train anymore - we're doing maintenance. So we need to make our own instructions -- right -- but essentially when you're doing maintenance to the train, you're basically replacing parts. Like, we're not reengineering the part, and we're certainly not remanufacturing the part when we're in their facility, so they would have used all of those, but they decided not to. I personally believe it's due to some of the egos of the

management team, but some would say that it was contractual and all that kind of stuff.

EMILY YOUNG: So Alstom maintenance would create their own manual when --

STEPHEN LENNERTON: Yes.

EMILY YOUNG: -- you could have used documents from construction to make that a lot easier? Is that what you're saying?

STEPHEN LENNERTON: Yeah. I mean, at the beginning, obviously you're going to have a massive learning curve. So out of, like, the roughly 150 people that built the train, there was 6 or 7 or something like that that they actually kept. So the management that came in regarded all the people who built the trains as not -- how do I say this politely? They weren't educated enough, in their mind, to be able to do maintenance, which baffled my brain. So they regarded them as being, like, a hindrance to what was going on, so they didn't want to hire them. They wanted to hire anybody who had a -- if you had a mechanical engineering degree or an electrical engineering degree, like, you're in right away. You know what I mean? Even though it's not a requirement to work there, they still wanted that to happen.

So this learning curve that would have happened at the beginning of maintenance could have been lessened by using some of those instructions until they had created the ones that they wanted. I'm not saying that wanting to create the new instructions was a bad thing, because it did have to be transformed into a maintenance-type instruction, but we could have -- for instance, like, all the mechanics on there -- like, if a caliper fails, I'm not opening up the caliper and rebuilding it there on the train. I'm taking the caliper off and putting a new one on. That's as far as you go with it. You know what I mean? If they sent it to the manufacturer and have it rebuilt or something, that's on them. So just even for a caliper, for instance, even just having the instructions from production to remove and put a caliper on would have been huge for them to be able to do, but this information was far and few between.

I actually obtained a USB card at one point that had the micros for all the bogies on them that I used in production, and I installed it with a friend of mine on the computer that the maintenance team used, and that was an avenue for

information that they would come to. This would provide things like torque values, part numbers. So for instance, if you need to get a specific bolt, it would give you the number for that bolt that you could go to the parts section and get the specific bolt.

EMILY YOUNG: And if you hadn't done that, would you not have had that information available to you? It sounds like information you need to do your maintenance job.

STEPHEN LENNERTON: Yeah. It's extremely crucial. So it's not that it wouldn't have been available at all. It's that they would have had to go to the supervisor, and the supervisor would have to request it from engineering and then engineering would have to transfer it down to them. So having it readily available at the click of a mouse -- like, one of the issues we had with management is that they spent all this money giving them all these electronics and computers and things to do their job, but they couldn't provide us with the torque value for a bolt. You know what I mean?

So we were a little bit frustrated with our access to it, so we kind of did our own thing

to try to get ahold of this information. A bunch of us that were still there from production got together and said, hey, we need to pull this information out that we would from before and get it to these guys because, like, they're going to do things wrong that's going to have stuff fall off the train - which has happened - and, you know, we need to help out as much as we can.

EMILY YOUNG: Was that ever improved over the time that you worked in maintenance? Did it start to get easier?

STEPHEN LENNERTON: The time that -- no. In my opinion, it actually got worse. So for instance, with the sanding injectors, they've -- they've been doing a lot of work on the sanders. Obviously there's been a lot of trouble with them. And then when we got to the point where we were basically being taught how to clean them, the instructions came from a co-op student who had written it, who was becoming an engineer. So they had an entire engineering team, and then they brought in a co-op student who is now telling me how to fix the train. So he's never seen this before, he's not even a complete engineer, and he's sending me information that has the wrong name of

parts; he's referring to things that don't do certain things and telling us to do things to them that you can't even really do. And there were multiple occasions where even, like, Hussein would tell me go and remove said part from the train, and I would have to look at him and inform him that that part doesn't actually exist, so I can't go and take it off the train, and they would be upset with me for arguing with him about it.

EMILY YOUNG: What would have been, in your view, the proper process to provide instructions on how to fix some of the issues with the sanders? Rather than having the co-op student, what should they have done?

STEPHEN LENNERTON: I mean, it needed to be revamped by engineering. They needed to -- the biggest problem is when they bought the trains, they forgot we have winter every year. It's as though we don't -- they bought these things and launched them as though winter's not going to come anymore because we bought these trains or something. So the problem with the sanders, in my opinion, is not necessarily the engineering of the device. If you were to drive this thing around on a beautiful California day, the sanders are going

to work fine all day. But the second you add our level of humidity and, you know, this cold and the change of temperatures and all that kind of stuff, this is where it starts to clog up.

So in my personal opinion, those sanders need to be completely revamped in order to do be able to actually do what they want them to do. They did attempt to change the sand that was in there to a different type of sand, but this also failed as well, so...

EMILY YOUNG: Do you know whether the sanders were identified as an issue before service started, or was it only discovered after service started?

STEPHEN LENNERTON: So because -- in the production, we had it kind of easy in the sense that if there was a massive snowstorm outside, we didn't go out with the train due to safety, right, because we were still in the testing stage. So we -- some of us there knew, like, as employees -- like, I -- like, I myself knew that this thing was going to cause a huge problem. Like, I could even tell just if -- if the sand got a little bit wet, it had a problem. So I knew that this was going to be a little bit of a headache. But by way of them

actually knowing at a testing engineering level, they wouldn't have been able to know for the simple reason that they never really actually tested that much before going. Like, it was a function test. Did it deploy the X amount of sand that we need it to deploy upon request? Yes, so it passes.

EMILY YOUNG: Did they run it in winter?

STEPHEN LENNERTON: In some cases, they were run in winter. But, I mean, when you take the train from the facility and it's warm run and you take it outside and you run it up and down the track two or three times and come back, you know, it's not sitting out in the shed overnight in minus 30 and then coming out in the morning when it goes up to plus 2, and then running it during the day, and as the day goes on, it drops back to minus 20. Like, these variables that change, you know, obviously create condensation inside the sanding well and obviously creates more issues as it goes.

EMILY YOUNG: So would they have needed to, more realistically, mimic operations to kind of figure that issue out?

STEPHEN LENNERTON: I mean, it could have been a suggestion, but at the time, the

testing we were doing was all underneath the requirements that they had agreed upon. So, I mean, maybe it should have happened, but to see Alstom step up and say, we need to do more testing because, you know, we're worried about this and then it would cost them more money, at a -- as a business look, that's not going to be something that -- they're not going to go out and willingly spend more money to do more things -- you know what I mean? -- when they don't have to, right, because the City at that time was content with the agreements that they had had.

EMILY YOUNG: So in your view, should there have been a more stringent winter testing requirements in the agreement?

STEPHEN LENNERTON: Yeah. I would have -- I would have 100 percent suggested that. Absolutely. I mean, in my personal opinion, the train was doomed from the beginning. This is not a train that's sold in countries that have winter. It rides too low. It needs to be stored in minus 5 to plus 15 temperatures. It's in an open shed -- you know what I mean? -- so whatever outside is is what it's stored at. I mean, the only thing that they could really do for the storage right now is

they can keep it on, which is their only real chance. Like, they can keep the heat on and everything in them.

But when it comes to being in the facility -- like, for instance, like the shed that they built, they didn't close all the walls because it costs more money in Canada because then it becomes a building, so then there's more inspections; there's more rules or stuff like that surrounding it. So they left the top portion of it open. So for instance, you're in the shed and you're doing an inspection, and there's a huge windrow up against the side of a train because snow has been blowing in through this opening. So it's not really being stored the way that the requirements were, I guess.

I don't know who built the facilities and all that - like, who made the decisions on these requirements for the facilities - so I can't really point the finger to that, but I can definitely tell you that it's not -- like, in my personal opinion, these problems are not about to go away at any point unless we seriously change the trains.

EMILY YOUNG: Do you think that

these -- these issues, that the train was not really fit for the Ottawa climate, was known at the beginning.

STEPHEN LENNERTON: They were known for certain people, for sure. For sure. There were people who had come from all over the world building trains for them. Like, people came -- they had been in China for 2 years; they had these amazing jobs where they travelled all over the world building all these types of trains in all these different types of scenarios. And a lot of the stuff that was talked about is, like, you know, we have -- you have open vents on the top for certain fans, like, for the -- the coil conductor, I believe -- I can't remember the name of the part. There's a conductor on top that kept exploding, and it was open to the elements, so when you're driving down the track, like, stuff's going in there -- you know what I mean? -- like, elements are going in there, and I don't think that that was necessarily what it was made to do, to have, like, freezing rain go in there or anything like that.

So it's -- it definitely was not suited for those temperatures, for sure. And the people who had worked on it, you know, would say, like,

you know, when the winter comes, like, this isn't going to work. You know what I mean? So -- and now we're seeing that. I think we can all agree, like, winter is the worst season for those trains.

EMILY YOUNG: And were those types of concerns, about how the trains would work and perform in winter, were they sort of escalated up?

STEPHEN LENNERTON: They were escalated amongst us in the sense that, you know, we were trying to put things together properly so they could work as best as they could. Our only -- as technicians, our only defence to what was going on was building the train exactly to the micro. So we -- everything I did was exactly the way the design said to do it. I never strayed from that. But by way of Alstom communicating to the City, I mean, the way I guess Alstom looked at it, from my standpoint, was that we were giving them what they requested. So they had purchased a certain train, and this is the design to build it, and that's what we're building. You know what I mean?

I'd give an analogy of it's almost like, you know, the City went to a car dealership, and there was the choice between a Mazda 6 and a Ferrari, and you're going out on a racetrack. And

then the City went in and said, Well, I want the Ferrari because it's cheaper, and Alstom said, Well, this Ferrari is what's going to win you the race. And they said, Well, it's okay, we want the Mazda instead. And then once they bought the Mazda, the Mazda was built, they turned around and said, This isn't a Ferrari, and Alstom said, Well, you've bought a Mazda; you didn't buy the Ferrari. And then the City basically went, Well, you need to turn this into a Ferrari. And that's obviously not possible.

That's -- that's how I see the -- some of the conversations that were had and the -- in some cases where City members came in, they were -- you know, Well, I didn't know this; you know, they would do this kind of stuff. But I think that was more of like a -- they were trying to pass blame on each other a lot. A lot of the project was, like, No, you did; no, you did - not, like, Let's work together. Because there's businesses, right? So the business is trying to make a profit, and the City is trying to save money, and -- and all this kind of stuff, so it's -- I guess that would be the best way to describe that.

EMILY YOUNG: So it sounds like you

think the City picked the wrong kind of train.

STEPHEN LENNERTON: Absolutely. And I think there's fault on Alstom for not telling them you shouldn't buy this, or not even presenting it to them as -- like, Alstom should not have presented a train to the City that would not be adequate for their working conditions. And the City should not have bought a train without doing enough research to find out if it was going to work.

I mean, there's many examples all across the world where Alstom has built trains that run in the winter that are very successful. Like, Alstom is actually a very successful train building company. They've built a lot of amazing machinery. It's just that here, the conflict of -- like, in my own opinion, like, we're penny-pinchers here. So because of -- like, I believe, like, the majority of the decision was based solely off the cost of it, right?

EMILY YOUNG: Can you elaborate on that a little bit more. Do you mean just the cost in the initial selection of the vehicle, or would you say that there were cost-cutting measures throughout the construction process that you saw?

STEPHEN LENNERTON: I would say, from what I researched, that the -- the want -- like, the main concern from the City was making sure that the train they bought was as cheap as possible is what I would say. I wouldn't say that there was any -- like, there were cost-cutting measures in, like, the way we did things, to be able to reduce the cost of doing it for the company, which is just sensible business.

But by way of saying, Oh, you know, we could put this part on, but Alstom's going to secretly downgrade the part, that kind of stuff didn't happen. Like, we built the trains as per the design. I mean, I wouldn't say that they're completed, but, you know, we -- the things that are on there are built to the design.

EMILY YOUNG: Do you think that the Citadis Spirit is a proven vehicle? Or was a proven vehicle when the City purchased it?

STEPHEN LENNERTON: Well, it's the first time they've ever built it. So that was, like, the big thing, right? Like, they -- these trains -- it was a brand-new design. It was basically, like, a mixture of some other ideas. And so I guess Alstom was wanting to present this

in this -- you know, they're new to this country. They're trying to get into the country to work in our economy, and then they're also trying to introduce new technology and new things. But, I mean, realistically, it's a railcar that a train should be driven down the middle of a street on a warm, sunny day, not on, like, a VIA Rail track.

EMILY YOUNG: Do you recall whether Alstom experienced any power issues in the MSF?

STEPHEN LENNERTON: Oh, yeah. We had breakers break -- like, we had fuses go all the time with the OCS. There were a couple of power outages that happened. We always used to joke around - when the lights went off, we used to say, Oh, they didn't pay the power bill again. Obviously it was a joke. But yeah, there were times where the power would go out a bit. And then you would have a backup thing, but it would limit us in doing, you know, like, testing with the power on, obviously. So there were some issues with that.

EMILY YOUNG: Were there issues with stinger power?

STEPHEN LENNERTON: Yes. So the stingers we actually pretty much -- so it's

interesting that you ask that. Are you aware of the difference between the OCS and the stinger? Or are you referring to the OCS when you say that?

So really quickly, the OCS is the line that runs above the train that the pantograph attaches to -- right -- that's what goes down all of our tracks. In the shop, there's a thing called the stinger, which is a power source that could be plugged into the train so that they can do about 80 to 90 percent of the things that the train will do without having to use the overhead catenary system. It's actually a safer way to power the train and be able to be on the roof. Because with the OCS on, you can't go on the roof of the train because you have to be at least, like, 9 metres away from the OCS so you don't die. And with the stinger, we were able to -- they were -- the electrician guys were able to test the top of the train.

But those -- I know for the longest time, only one of those worked. And they were always up and down, up and down - like, they would fix one and then it would break again. And it got to the point where they just said, Screw it, we're not going to use those. It was just too much of a headache.

EMILY YOUNG: Do you know what -- do you know what the causes of those power issues were?

STEPHEN LENNERTON: No. No, I wasn't given that information. They had, like, techs that came in that did that that are, like, power line technicians for the train. They'd work on the OCS and stuff.

So I was always removed from that for safety reasons. Like, I'm not an electrical guy, so I don't --- you know, so I'm not going to be in there if I don't need to sort of thing. So no, I wasn't -- I do not know the details of what would have caused that.

FRASER HARLAND: And with the fuses, did you have any sense of what was causing those to blow?

STEPHEN LENNERTON: No. We -- we -- like, we had speculation that some of the guys had told me. But it didn't really concern me too much, so I didn't really pay too much attention to it.

EMILY YOUNG: What impact did those power issues have on your work, assembling the vehicles?

STEPHEN LENNERTON: When the building

power went out, I couldn't see, so that would be one. But by way of mine was mostly mechanical. So if the train couldn't be turned on, I couldn't actually test the brakes and stuff. But by way of being able to install parts on the train and stuff, I could still work that way. There was still stuff I would do. It would stop a few things here and there, but it didn't really impact me specifically. It was more of an impact to the testing team, who needed the power to be on to do their job.

EMILY YOUNG: Do you know whether an electrical fire ever occurred in the MSF?

STEPHEN LENNERTON: Not a fire. There was an electrical fire that happened on the rail, but not in the facility, to my knowledge. I know one person got electrocuted by a capacitor. But nothing that like -- nothing that I know to -- oh, there was a -- oh, yes, there was. There was a wiring harness in one of the CVSs or one of the computer components on the train where one of the wires had caught fire. But I can't remember if that had caught fire on the track and they brought it back in, or if it had actually caught fire in the facility. But I know stuff caught fire on the track.

EMILY YOUNG: Do you know what the cause of those fires was?

STEPHEN LENNERTON: Well, the one big one was the fact that the driver drove the train too far past the end of the track, and the nose of the train touched the OCS as it came down into the ground. So at the end of the rail, the OCS goes from the top of the pole down into the ground where it's grounded. And he had gone past a barrier and the horn on top of the train touched the OCS and the big huge light thing happened and there was a little fire there, stuff like that.

EMILY YOUNG: Would that have been at a stage when that operator was in training, or was that --

STEPHEN LENNERTON: That wouldn't have been --

EMILY YOUNG: -- later on.

STEPHEN LENNERTON: As far as I remember, that was later on. I don't believe that was an OCS -- or an OC driver. That would have been somebody employed by the OLRT at that time.

EMILY YOUNG: Okay.

STEPHEN LENNERTON: None of the production guys drove the train. So every time a

train went out for dynamic, somebody was sent from OLRT to drive the train. Usually it was a guideway tech.

EMILY YOUNG: And do you know whether there were any mitigations put in place as a result of these electrical fires?

STEPHEN LENNERTON: Yeah, so the barrier was put in properly. They immediately put safety protocols in for that. I know they -- one -- one good thing about Alstom, especially in production, is once something was either -- if they knew something was unsafe, things were stopped, and they would put in safety measures. And then also, you know, when fluke things happened when we're unaware of, you know, obviously major changes were made for safety purposes.

EMILY YOUNG: Do you think that Alstom had the workers that it needed in the MSF in the construction phase?

STEPHEN LENNERTON: Construction for the trains still, or the building?

EMILY YOUNG: The trains.

STEPHEN LENNERTON: I mean, yes. There was a lot of people there that were very good at what they were doing. Like, there was a lot of

guys that were very passionate about it, and they were definitely very qualified to do it. But just like any facility, you're going to have people who are there, and they don't care about what they're doing. You know, there was a lot of younger people, who, you know, this is just a job because I need a paycheque, and they cared more about going and partying on Friday night than they do about what's going on on the trains.

I think because of Randstad, it made it a little bit less appetizing to people to get a job because, you know, you're $18 an hour, and you are required to do a ton of stuff, and a lot of the people, a lot of the younger guys that were in there, they didn't want anything to do with maintenance. Like, they didn't care. They were going to go on to something else, and so they just wanted the paycheque that they were getting to, you know, go out and party and stuff.

So I think if they had made more incentives to it, there would have been a little bit more quality in the people that were there. But then when you got into, like, jobs as though -- like, somebody that's on the test team, they were paid much better due to the fact that they came in

with, like, electrical engineering degrees, and they were very qualified to do what they were doing.

EMILY YOUNG: And did Alstom retain Randstad to do the recruitment for the assembly crew?

STEPHEN LENNERTON: Yeah, so that's how it was advertised. So actually -- I actually -- a friend -- so my sister's best friend's boyfriend worked there. And he actually told me, like, Hey, man, like, your skill set could really be used here. You should look into it. This is what made me start looking into what the project was. And then I actually went to the Randstad website to apply for the job. So that's -- like, I didn't go to an Alstom website and apply. It was applied through Randstad. So they would have -- they would have recruited and -- I guess -- if they advertised -- I don't know if they did, but if they advertised for it, it would have been through Randstad.

EMILY YOUNG: And so it sounds like you're suggesting that the -- the overall quality of people might have been better if Alstom had done recruiting directly and paid people more.

STEPHEN LENNERTON: Yeah. I mean, like, I made $18 an hour, and I think it was $8 above that went to Randstad. So that was money that I should have been making. And then on top of that, they would tell you right at the beginning, like, You're not getting a raise. So how it worked was I made $18 an hour and Randstad made $8. Now, if I got bumped up to $20 an hour, that meant Randstad only made $6, and then if I got bumped up to 21, they only made 5. You know what I mean? So when you went and asked for a raise, they didn't want to give it because they were making a profit.

So for instance, to get a raise, later on in the project, my value as an employee was extremely high because I was now at a certain point where I was the only one in the world who was doing these things because they're not being built anywhere. I know that sounds pretty elaborate, but it was part of the coolness of this job. So for instance, I got to the point where my job was being -- I was required to do too much, so I went to the production manager, and I said you need to give me more money. And he says, well, I can't do that. And I says, well, Friday's my last day, and, miraculously, the next day I was bumped up to $26

an hour, and I had been back-paid for that difference the last 2 months.

So you had to corner them to do that. And you had to have leverage in order to do it, which I -- when I look back at now, it's not really fair, so to speak, because it's not really fair to the other people who are making the $18 an hour. But it also wasn't fair to the people who were much more valuable in the sense of how driven they were and their expertise in what was going on.

EMILY YOUNG: What kind of training did you receive for the construction work on the vehicles?

STEPHEN LENNERTON: So formal training, you would get torque and glue training, so there was some gluing that went on. And then torque training would be, like, how to set a torque wrench, how to properly torque a bolt because that was a lot of what was going on. And then after that, you would have more person-to-person training. So for instance, like, if you went to the first station, a gentleman named Easy was -- well, his actual name was Malaku (phonetic), and his nickname was Easy. He was the team lead for that station. So then you would go and work with

him, and he would shadow you and show you how to read the micro and back and forth.

But by way of formal training for this, they had -- Alstom has this idea that if they make the instructions readable to a Grade 9 level, then anyone that they hire with a high school education is going it to be able to walk in and do this. There's definitely this idea of that -- at Alstom that everybody's replaceable and anybody can come in and just do anything. Like, you -- you know what I mean? Like, if I don't do it, somebody else will -- right? -- which, in a very specific situation that we were in here, that was not the case, and that kind of -- kind of hindered things a little bit.

EMILY YOUNG: So your view is that not just anyone could walk in from the street and read Alstom's instruction and do the job?

STEPHEN LENNERTON: No. No. Definitely not. Like, you'd never seen the thing before. That would be like can you go in and do a heart surgery on your first day. You know, like, you can't. Like, nobody can. Even after going through medical school, you can't just walk in after medical school and do a surgery. There's --

there's multiple different tests and things they do leading up to that, right? So this was controlled by the team leads.

Like, for the first 6 months you were there, the average person was not actually allowed to do anything without a team lead watching them. So that was how they had to do the training. And the situation of that it was built nowhere else is what caused this type of training. It was not that they were doing it out of negligence; it was that there was no -- like, we were still learning as we went. There was a lot of trial and error going on.

So they couldn't really just hand you an instruction book that was already set in stone and you could go out and figure your way out, you know. There was a lot of times where the team lead would look at me and say, we got to go to engineering because I'm at a point where I don't even know, and this person had been there for a year, let's say. So then you'd use your engineering and stuff like that.

So there was a lot of learning as we go, which is why I imply that having higher pay would have brought people who are more interested in it, which would have brought a higher learning

level into a facility.

FRASER HARLAND: You mentioned earlier that you are able to do things -- I can't remember the exact numbers you gave, but I think you did something in 5 days that --

STEPHEN LENNERTON: Yeah.

FRASER HARLAND: -- had taken others 3 weeks, so --

STEPHEN LENNERTON: 2 and a half weeks, yeah.

FRASER HARLAND: 2 and a half weeks? Okay.

STEPHEN LENNERTON: Yeah.

FRASER HARLAND: So what -- what explains that? Is that your level of experience at that point compared to people who are unexperienced? People's motivation? What was going on there?

STEPHEN LENNERTON: I would say it encompassed all of it. So when I first got there, they were still -- like, they knew what they were doing, but -- how do I explain that? They knew the procedure that they were doing, but also the repetitions that they had, at that point, weren't very high either.

So one of the big learning things is how many times you've done something. Once you -- if you've done something twice, you're not going to be as good as it as if you've done something a hundred times.

So there was that aspect, and then also the motivation. There was a lot of, like, I'm not paid enough to go that fast; I don't care about their deadline because, you know, I'm only paid $18 an hour; whereas I walked into the facility and said if I do, it's going to be undeniable that I go to maintenance, right? Like, my whole goal was to get to maintenance. Like, they could have paid me, like, minimum wage for all I care, and I still would have worked that hard to get it done. So a lot of it was motivation.

And then also, yeah, my experience - like, I was able to pick up on it a lot faster than some of them were. And then also just my -- my -- being a little bit older and some of the other jobs I had, I was able to manage the job a little bit better, so I was a little bit more organized, I knew all the tools I needed.

And then there was memorization too. Like, I literally memorized all these micros.

Like, to this day, I could name you probably all of the torque values of all the bolts as we pointed to them type thing. So being able to do it out of my brain instead of having to look at an instruction all the time also sped things up.

Now, there were certain -- I want to be clear too, there were certain components of what I was doing in those 5 days which would require somebody else to be with me, and in some cases they would have someone work with me just because they thought they were working me into the ground, and they thought it would make things a little bit easier for me.

EMILY YOUNG: Can you just clarify for us, Mr. Lennerton: What is a micro?

STEPHEN LENNERTON: So a micro is like an instruction. So for instance, like -- it's a French term. So, like, if you buy a barbecue and you pull out the instructions, that's a micro to them, just more detailed, I guess you would say.

EMILY YOUNG: Do you think that the training you were given to prepare you for your job assembling the vehicles was sufficient?

STEPHEN LENNERTON: For me it was because I was able to learn extremely quickly, but

I don't think overall, to the majority of the people in there, it was sufficient. I mean, in some stations there were people who literally spent all day putting zip ties on. Like, that's all they did. They would put a wiring harness down in front, put a zip tie on. They might tighten a 10-mil bolt every now and then.

So by -- in that aspect, it wasn't really needed that much. I know in some stations -- like, for instance, ASO 2 was a very big station in the sense of like the components they were using were heavy, and they used, like, more power tools. So that person would spend more time with the team lead learning a little bit of different things than somebody who's putting zip ties on. You know what I mean?

EMILY YOUNG: What do you think that they could have done better to train everyone who wasn't maybe as quick a learner as you or as committed?

STEPHEN LENNERTON: Well, they definitely should have had, like, specific training to where the point of -- like, for instance, when -- how do I say that? So, like, when I went and worked with the team lead when I first started

there, the job we were doing was not specifically to train me. It was still to complete the task that he was assigned to do. So there wasn't anything where, like, you would go and walk up to the side of the train and you would do something that, even if you messed up, it didn't affect production -- you know what I mean? -- so it was, like, specifically to training.

I think if they isolated that more instead of having a person sit there and do a -- so, like, for instance, the team lead is trying to train me, but at the same time, he's trying to keep up. Like, he's got to finish this job in enough time to get his next job done and for us to meet his deadlines.

So it's not like they were in a relaxed scenario where they could take the time to explain it and then go through the things they know and then have the person try it, fail, try again, maybe have a little bit of success or -- and adjust in that aspect. I think that would have helped a lot more.

But, again, information on the train was still being developed as we were going, like figuring out why certain things were the way they

were or fit the way they fit, like things like that was not as known, so it wouldn't have been -- they wouldn't have really had the information to be that direct.

EMILY YOUNG: Are you aware of any issues that were encountered in integrating the Thales and Alstom systems?

STEPHEN LENNERTON: Yeah. Thales is -- Thales is junk. That stuff doesn't work. We were actually -- like, I actually installed Thales at one point. I put in, like, over a thousand wires into a train to construct it. They would give us a list of lines that would have remove this and put it to this and take this out and -- completely and add this wire in.

So Thales was originally supposed to come already built into all of our wiring harnesses and everything like that. Due to the failure of Thales, that didn't happen, so we actually had to put it in after the train was built, and then obviously now we know that Thales has -- came in during maintenance, and we know that they then had tons of trouble. I mean, I was even told that in Toronto or in another project -- I don't think it was the one in Brampton, but they were actually

walked off the site due to the incompetence of what they were doing. So Thales -- like, the automated system in the train, that is -- like, at this stage, with what's going on, it would be horrifying to me if we were even trying to use that. So it's kind of a blessing in disguise, but yes, there were major, major problems with the Thales system.

EMILY YOUNG: And was the -- the main problem, it sounds like you're saying, is that Alstom was expecting to receive the system, like, ready to go, kind of plug-and-play into the trains, and that's not what it got.

STEPHEN LENNERTON: Yeah, that's -- that's essentially what it seemed like to me is that -- like, we were there to assemble the train, turn it on -- make sure it works, turn it on, and sell it to you -- you know what I mean? -- not reengineer the Thales system because they failed on it. You know what I mean?

And then at that point too, because of the amount of wires on the train, it's hard for them to -- like, they would send us something that's not complete because we needed to keep going. So then you'd have to put it in after, which then made it even more difficult, which, in

turn, could cause more problems due to damaging something else or whatever at the time.

EMILY YOUNG: So you were under a time crunch, Alstom was, to --

STEPHEN LENNERTON: Yeah.

EMILY YOUNG: -- complete the vehicles, and you didn't have what you needed from Thales when you needed it, so sometimes you had to kind of move ahead and then go back and retrofit or fix the --

STEPHEN LENNERTON: Exactly, yeah. Retrofit is the exact word, yeah. That was basically what -- and that situation was -- I felt was forced on us due to the lack of completion from Thales.

EMILY YOUNG: And did that have effects on Alstom's work as well --

STEPHEN LENNERTON: Oh, yeah. Well, they had to -- so you had a retrofit team that was supposed to be going around and saying, you know -- like, for instance, like, this air control panel, well, there's a revision on it, and they've changed one of the valves, so I would go up to it, unbolt that one, bolt the new one on, connect it all up. And in my case, I would turn the train on and make

sure it worked. But in most cases, testing would do that.

So that's what we were supposed to be doing, but now we had to go in and facilitate a train to come back in that's completed and supposed to be sold. Now we've got to bring that back in; then we've got to allot people to it to do it, right, which then takes manpower away from other things, then causes the need for more hiring, which makes the spending go up and all that sort of stuff, right, so it was like a snowballing effect.

Now, in my opinion, we got done what we were supposed to get done, but I think we're all aware that the Thales system is not working, to say the least.

EMILY YOUNG: And are there still retrofits ongoing to the Thales system?

STEPHEN LENNERTON: I would assume so. I know Thales -- when I was still there, I know Thales was still in and out of there all the time.

EMILY YOUNG: And when you say that having to do those retrofits in the Thales system was taking people power away from other things, what were those other things that were being --

STEPHEN LENNERTON: Well, so the

retrofit team that I was on was the one that would do it. So for instance, like -- I don't know -- we'd have, like -- one of the things that the retrofit team did was closing points. So we would have all the little tiny things that needed to be -- so the City is coming, and they want a brand-new train, right? Well, this seat here, for whatever reason, has a tear on the cushion, so we need to fix that because they're buying a new train, not a train with a torn cushion. So you would need somebody to change that cushion.

Well, that team of people that would go in to do this -- now, to put it into perspective of what we're doing, there's, like, a list of, like, hundreds of things that would need to be done, little -- we're talking little paint dings and, like, little things like that would need to be fixed as well. So you'd have a team of, let's say, six people that would be assigned to do that. Well, two of those people need to go and do Thales, let's say. So then you would have the four people, which would mean, you know, either those people are pushing to do more work, or they're falling behind because they don't have enough people to complete all those tasks.

EMILY YOUNG: I see that it's -- oh.

FRASER HARLAND: Sorry. Other than the complications that the Thales system created in terms of retrofits and train construction, are you aware of issues that the Thales system caused for the operation or reliability of the trains, especially during revenue service?

STEPHEN LENNERTON: I know that sometimes the testing team would say, you know, this component is, you know, causing an issue or whatever that would have Thales components in it. But I don't know any specifics of that because it goes into the electrical realm, and I -- I didn't have -- I didn't have enough time to learn all that as well. I know that train set 2 -- our original train set 2, almost all of Thales was bypassed by the driver so that he could actually test the train without being interrupted by it because it wasn't working on his train.

EMILY YOUNG: What do you mean "bypassed"?

STEPHEN LENNERTON: So, like, train set 2 was a validation train. So if he needed to test specific safety features on the train, in order for them to work, he would have to bypass the computer

system that wouldn't allow it to happen. So for instance, like, would the door stay shut when the train is driving, you know? He would have to bypass that system in order to get the train to do the wrong thing first to see that the train would respond correctly. So he would have to force issues in order to get to the correct response from the safety feature, if that -- I don't know if that explains that well enough.

EMILY YOUNG: And is that because just the Thales system wasn't working?

STEPHEN LENNERTON: Yeah. Yeah.

EMILY YOUNG: Are you aware --

STEPHEN LENNERTON: From what I -- that's from what I understood, yeah.

EMILY YOUNG: Do you know whether there were any other integration issues between systems?

STEPHEN LENNERTON: The compressor. The compressor gave us problems, so we changed to a new compressor. By way of, like, integrating them, I mean, it was more -- like, some of the delays that would happen is, like, if you had to put in new wiring, so a technician would go in to change the wiring and they would accidentally damage something else. You know what I mean? Like, that

kind of an issue.

But by way of, like, it affecting programming and stuff, I -- I don't know. I didn't -- again, I didn't do a lot of the electrical stuff. It was mostly towards mechanical failure and stuff like that.

EMILY YOUNG: I think it might be a good time for a break, unless, Mr. Harland, did you want to jump in with another question?

FRASER HARLAND: No, this is a good time for a break.

EMILY YOUNG: Okay. So maybe we can come back at 4:45, if that works.

-- RECESS AT 4:33 --

-- UPON RESUMING AT 4:45 --

EMILY YOUNG: So, Mr. Lennerton, there was something you wanted to clarify about your job description.

STEPHEN LENNERTON: Yeah. So later on in the project, I think probably within the last year -- I wouldn't say it was a full year, but -- the retrofit team got smaller, and I was moved to a -- like, a -- one of the production parts, which was called PCO 9. It was the last train of the before it went to testing, and they made me a team

lead of that section. So I actually, in one part, did all of that -- or all of the mechanical stuff that you were talking about from before. And then I would also manage a team under an EPU manager to finish, like, closing points and stuff like that, which was more of a production role than it was the other one.

I just wanted to throw that in there because one of my questions was if my title changed, so technically I went to a team lead position.

EMILY YOUNG: Okay. Thank you. And so did you have any specific role in testing and commissioning, or you were on the retrofit team throughout that phase?

STEPHEN LENNERTON: So the extent of my testing was the brakes. Because the people who were testing the train were electrical, once the -- like, obviously the electricity powers a mechanical device, so on the mechanical side, I would give a lot of yeses or nos as to whether something was working.

So if the caliper wasn't working -- I would set all the hydraulic fluid and everything, and then they would cycle the brake from inside the

train, and I would stand in front of the brake and give them yes or no as to whether it's working. We would also then look at, like, hydraulic pressures and things like that and how fast they dropped and things to see if there were other issues because this was more in my avenue of expertise and a little bit outside of what they were. So we kind of colabbed a little bit in that.

I didn't normally go for a dynamic test, so -- at one point, though, I was rewarded -- one of the things I wanted to do was ride the train before any regular citizen was able to do it. It was just -- I just wanted to see what it was like. I wanted to hear it. Sound was a big way of testing things. So there was a couple of occasions where -- well, in one instance I got to actually go for a dynamic test with the testing team and visually test the brakes the way they did out on the track, which gave me an enormous amount of information to make me even better at my job. And then there was also the validation team who would go out on the track, and he would need somebody to assist him in certain things. I would also rescue his train as well during his testing. So I would go out to the track and do it.

But by way of actually testing electronics and stuff, that was not -- that was not me. I could bring to the attention that something wasn't working, but the final decisions were made by the people who were qualified in that department to do so. But my word did have a lot of weight in it. So if a production person from the floor just said, Hey, I don't think that's working, they wouldn't -- like, they maybe look at it for a second to see, but there wouldn't be really too much done about it. But if I told them there was something that wasn't working, you know, things would stop and we would figure it out.

EMILY YOUNG: So you were helping with both validation and serial testing?

STEPHEN LENNERTON: I was helping with validation, production, the retrofit team, and then when warranty started at the very end, I also assisted that warranty team a lot. So pretty much, like, anything -- any -- any time anything turned into a mechanical issue, I was on it. I was -- I would -- I would consider myself, like, the mechanic of the shop. I was the closest thing they had to, like, an actual licenced mechanic, I would say, without being licenced. I do not have a

mechanical licence or anything like that.

EMILY YOUNG: Are you aware of validation testing being delayed on the project?

STEPHEN LENNERTON: In some cases, yes. Not due to the person in the validation team, but -- for instance, when we switched from the Revision 1 calipers to the second revision calipers, the caliper itself came to us before the hoses that connect to the train were sent. So we had the device, but we couldn't actually make it function on a whole train because the other component that we needed was not there. So there were ways around it to test it in a static situation, but by way of going out onto the track to do it, that definitely would have caused a delay.

But usually the person who was doing validation, the main person for it doing the testing, he will -- he was very ambitious, so he would just simply switch to something -- he would go and test something different in the time being. So it didn't necessarily completely stop them. In some cases, I guess it would have delayed it by a bit.

Obviously, failures for it too would

delay him. Like, for instance, when we first got the brakes working on train set 2, the new set of brakes, we were not told that the software in the HPU would have to change, so when he went out to test, the second he applied the brakes, they applied at 100 percent, and this locked up the wheels and caused flat spots. Now -- whereas now we deal with flat spots by lathing the wheels. At that point, we didn't have a lathe wheel, and because the train is still being built, they don't want lathe wheels. They need new ones. So for instance, he went out and came back and I had to change 11 wheels on that train because they had so many flat spots due to something like that.

So that would have been a delay, but I mean, again, I would do things very quickly and high quality, so I changed all 11 wheels in 3 days, so it wasn't too bad.

EMILY YOUNG: Was validation testing still ongoing as serial production was underway?

STEPHEN LENNERTON: Yes. So train set 2 was built obviously after train set 1, and that was immediately went into validation right away. So he had been validating that train the entire duration of time.

EMILY YOUNG: And sorry, when the validation was going on on 1 and 2, were others also being produced in serial production?

STEPHEN LENNERTON: Yes. Trains were still being produced, yeah.

EMILY YOUNG: And is it your understanding that normally you would want to have your validation testing done before you start serial production?

STEPHEN LENNERTON: I mean, in a perfect world, when they've built a train that -- you know, they already know the design of the train. It's built somewhere else, let's say, and they're re-creating it, I could see that being a possibility, but given that these things were being made, tested and everything all at one time, I don't really see that being possible.

Now, I personally -- because of when I started, I don't know if, you know, like, if train set 2 had started validation before production had officially started. At the very beginning of the project, there was a handful of people who had applied right away and were hired, and they were sent to a location in the States were they were trained on how to build train set 1, and that's how

we got our start of information. So I don't know if, like, right after that they built train set 2 right away, and that's when validation started or if they had built train set 1, then built train set 2, validation started and then production started, but I know that validation and production overlapped each other during the time for sure.

EMILY YOUNG: Does -- is the result of that, not having validation done before you go into production of others vehicles, that more retrofits would be required?

STEPHEN LENNERTON: It -- I definitely would say that it's, like, you know -- let's say, for instance, he gets train set 2, and he's validating the train, and, you know, now train set 3, 4, and 5 are built and then he finds an issue, so now they can only start implementing that on the next train that's built, and 3, 4, and 5 would have to be retrofitted to fix said issue, shall we say.

EMILY YOUNG: And did that happen on the construction process for these vehicles?

STEPHEN LENNERTON: I would say yes. I would say it would because that's where a lot of our changes would come from, right? Like, he would report back and say -- you know, for instance,

let's use calipers as an example. He reports back and says, These calipers are not up to standard; this is not going to work. And then we would have to continue on with those brakes in order to, you know, be able to continue on with the project while we waited for the new calipers to be brought in.

EMILY YOUNG: Do you know whether there were any issues with getting access to the track to do testing?

STEPHEN LENNERTON: During construction, because the track wasn't completely installed, they were limited to how far they could go. Safety also limited them too in the sense that they didn't have all of their control systems in, so it was -- there was a lot of permits that needed to be in place and certain construction on the site might stop these things from happening at certain times. But that was all, like, kind of part and parcel of everything. You know what I mean? Like, obviously you can't drive down a track that doesn't exist, so -- you know what I mean? That would be -- that would be horrific kind of thing, so obviously those sort of things had an issue.

I know that the state of the tracks -- I don't know if you guys are aware, but the tracks

are not built very well, and so it would cause issues in the sense of -- like, they would say, We think we hear a problem, right, but we can't tell because there's so much other noise being made by the tracks -- you know what I mean? -- so that would hinder that as well.

EMILY YOUNG: What do you mean when you say the tracks weren't "built very well"?

STEPHEN LENNERTON: To give a good example, I sat on the train one time when we were out on a validation run, and I could look straight down on the track and see that it was not straight, like you could visually see, like, the track would go like this and then one would go like this. And, you know, stuff like that. You could look out the front of the bay and see a huge bow in it and stuff like that. So I personally don't think the quality of the tracks was kept up to par, shall we say.

EMILY YOUNG: Do you have a sense of whether the testing and commissioning phase on the project was compressed or rushed?

STEPHEN LENNERTON: I mean, Alstom obviously wanted to push it to keep going, but the managers for the test team were amazing, and they wouldn't let -- because they're liable too, they

wouldn't let certain things go by. So, like, if the -- if the testing commissioner -- or sorry, not a commissioner but, like, if the testing engineer said, No, we're not going out to test that, there wasn't much Alstom could do about it. So even though they still wanted to stick to their plans -- it's not like they were saying, hey, go do something unsafe, you know.

Like, obviously they would communicate about this topic or whatever, but they would definitely say -- you know, like, we can't, you know, the pantograph won't stay up. Like, we can't go and test. You know, without the pantograph attached to the OCS, let's say -- it's just as an example. I'm not saying this happened all the time, but it's just as an example. If the pantograph can't stay up, we can't go out and test, so it would be foolish for Alstom to say get out there and do it anyways. You know what I mean?

EMILY YOUNG: And who would be the person saying that type of thing? Like, the pantograph is not properly in its place --

STEPHEN LENNERTON: So the testing team would test it, find out there's a fault, let's say, and they would report that back to their manager,

which was the engineering manager for the test team, and then he would go into this meeting and he would explain this issue of what's happening, and then they would revamp their planning in order to either keep the train in there or move it for now, like have it towed out so they could work on something else until they had the ability to fix said problem.

EMILY YOUNG: Are you aware of any changes to the original plan for testing and commissioning or any kind of value engineering in that process?

STEPHEN LENNERTON: No. That's a little bit above my head, I think.

EMILY YOUNG: Can you just briefly explain for us what the difference between static and dynamic serial testing is?

STEPHEN LENNERTON: Okay. So the first stage of static test was put in what we called the cage. So at the end of the station, there was this big cage that we had that they would put the car in, and then members of the testing team would plug in certain machinery that would be able to send power down the line from one end of the line to the other, and it would tell which wires have issues or

pins are not where they need to be or things like that. So that testing would be done to make sure that, obviously, when they turn the whole train on full power that nothing blows up, let's say - which didn't happen, by the way. Nothing every detonated inside the building.

But then that train would be put into the last stage of production, where it would be attached and put into a full train. Then it would go to the second stage of static testing, which would be in the LMB, which is the MSF 1s and 2s, and it would sit there stationary, and they would test all the components that are working. And once they've determined that, one of their last tests would be what's called an earth test, which is they test all the major grounding in it. So they would actually force power down the ground lines in order to make sure that if there was a fault, it would ground properly.

And then they would do what's called a bump test. So they would move the train under power inside the bay, you know, a couple of feet to make sure that, one, they're going to have proper propulsion and then also that they would have brakes that would work.

And then after -- sorry, the dynamic part would then be they would schedule a time to go out on the track, and they would go up and down the track and make sure that it does all those different components at different speeds. And then they would test the doors too. So, like, for instance, one of the tests would be they would have to get up to like, let's say -- actually, they did it at 55 kilometres an hour, I believe. And then at 55 kilometres an hour, you know, one of the technicians would push on the door and to make sure that the door is not going to just open while the train's flying down the track, right?

And then they would test the braking in that too. So they would go through, like -- they would go through a dead man's test - so, like, for instance, if the driver has to hold a handle in place, and if the driver were to - you know, heaven forbid - pass away while driving, he would let go of this handle. If this handle is not held, the train would automatically go into an emergency braking system, and it would stop the train immediately. So they would do that sort of test.

And then they do the test where they pull the brake all the way back, and that would be

like regular braking that the driver would do if he's in control of the train. And then there would be the emergency stop that they would press that would be a full-on, manually initiated test.

And also in concerning to Thales, Thales does work in certain aspects in -- like, it's connected to, like, the GPS system in the train, so it is used in a certain extent to know where it is on the track and stuff like that. It also automates the braking and stuff like that. Like, the drivers are mostly just pushing a button at this point. But by way of it working in an unautomated system is not happening, just to be more clear on that.

EMILY YOUNG: Do you know how much time the trains had on the track to run and test before service, how it compared to other rail projects?

STEPHEN LENNERTON: I don't know how it would compare to other rail projects, but I definitely know that, for instance -- like, all the trains had a dynamic test. But, like, for instance, when OC Transpo started to take over, they wanted to start training drivers, and as we were building trains, not all those trains -- like, it's not like they cycled through all of the

trains, from what I understood. They would have certain trains that were designated to allow the drivers to practice on.

EMILY YOUNG: So does that mean that some trains were getting a lot more kilometres than others?

STEPHEN LENNERTON: Yes, yeah.

EMILY YOUNG: Could that lead to any issues?

STEPHEN LENNERTON: Well, I mean, obviously, like, wear and tear on the machine is going to bring, you know, maintenance sooner. It's going to -- you know, stuff is going to wear down faster. So, you know, definitely if they had flat spots and stuff like that when they did it, the wheels had to be replaced and things like that. But by way of it causing any, like, difference in the issues we're having now versus -- like, you're not going to be able to go there and say, like, well, we know this train's having a lot more problems than this one and then directly relate it to that issue is probably not possible. It wouldn't have been that much. It did put more kilometres on it, yes, but I don't think to that extent.

EMILY YOUNG: Did you have any role in the trial running phase?

STEPHEN LENNERTON: No. I was never -- not -- not to, like, learn how to drive the train or anything like that. I -- I don't even -- I don't even recall being on the train when OC Transpo drivers were on it until later in maintenance.

EMILY YOUNG: Would you say or is your understanding that there were a lot of deferred retrofits going into service as compared to what you might see on other projects?

STEPHEN LENNERTON: By way of being able to compare that to another project, I've personally never been a part of another project, and being able to gather that information from an outside source is very difficult. Alstom is very private with some of their information. Like, the measurement of the wheel flange is, like, one of their most sacred things. Like, no -- like, train companies do not share their measurement of the wheel flange with each other, and if you ask them what it is, they look at you sideways like, you know, why are you asking this question kind of thing. It's a funny topic. We used to tease them

with it.

EMILY YOUNG: Fair enough. I'll reframe it this way: Did you have any concerns going into service about the amount of retrofits that still had to be done to the trains?

STEPHEN LENNERTON: Yeah, absolutely. Absolutely. Like, when the trains got launched, the auxiliary line on the brakes is not even hooked up at all. There's no reservoir tank for it. There's no oil in it at all.

EMILY YOUNG: What does that mean? Like, what's the effect of that?

STEPHEN LENNERTON: Okay. So you have a main line, which is what functions all the time when you're driving the train, right? It's controlled by the HPU, right, so technically when the train breaks on the track, we have to do what's called a rescue. So right now, what they have to do to rescue the train is they have to turn the train off and then they have to turn on certain components of the train, which is basically the HPUs; they have to tell the HPU to release the brakes. Then the HPU and the accumulator are required to then hold this pressure so that the brakes stay released, and then they would tow the

train back, right?

The correct way to do it is that there's actually a hand pump that's supposed to be mounted inside the train that a technician such as either myself or a warranty technician - whoever's qualified at the time - would go onto the train and connect this device to a quick connect outlet that's behind a small trap door. He would then physically pump the pressure required to hold the brake open, and then they would tow the train.

The importance of that is that the HPU and the accumulator are only capable of holding pressure for approximately 7 to 8 minutes. So once you turn all that on and put the pressure in, they have to turn the train back off, so then the timer starts ticking, so then they start to tow the train.

Well, while this is happening, the pressure in the calipers are dropping, which means the pressure is now -- or the caliper is now reapplying pressure to the rotors, which would then lock up the wheels. This is why -- I don't know of how much you're aware of the project, but this is why when they rescue a train, the wheels have to be lathed because they've basically just dragged the

thing back. So the problem with that retrofit is they need to put what's called an overflow tank in. And that tank needs to sit somewhere -- like, for instance, you can't put a high-pressure tank behind a piece of plastic that would be directly next to a customer's, like, body -- you know what I mean? -- in case there was a catastrophic failure.

So there would have to be a pipe -- like, a hose put in. It would have to be mounted properly. And up to the point of where I left, I never even saw any sort of drawings of this or anything. And to me personally, that's, like -- the amount of problems that they're having, not being able to rescue the train properly is one thing that I find is very much, like, in the way of what's going on.

EMILY YOUNG: In the way in the sense that it hinders the ability to do maintenance of --

STEPHEN LENNERTON: To -- well, it -- it hinders the ability to rescue the train on the track in a timely manner, and it also -- if they had those components in the train, they would be able to rescue the train without further damaging the train. So the way they're doing it now when it fails, it damages the wheels, and that causes more

work. So for instance, it can't just come back in and have a quick fix done and go back out. It's got to be in for a day to be fixed; then it's got to go to the wheel lathe; then it's got to be lathed. All that has to happen and then it can go back into service. So that's definitely something, in my personal opinion, that highly contributes to delays.

EMILY YOUNG: Were there any other retrofits that had yet to be done at the time of service that concerned you?

STEPHEN LENNERTON: Not like that, no. I mean, there were probably little things here and there, but they were out of my scope of work at that time, so I didn't really pay attention to that. I mean, my thing was, like, I was doing the brakes, right, and that's arguably the most important part of the train. So my -- I was so focussed on that that these -- like, you know, oh, this zip tie's not in the right spot, I personally don't care about that zip tie -- you know what I mean? -- that kind of thing.

EMILY YOUNG: Do you think it's fair to say that the push to get to service would have downloaded more work onto maintenance?

STEPHEN LENNERTON: I mean, maintenance doesn't do anything -- like, maintenance doesn't take care of any retrofits or changes to the train, so I think what would have hurt more was the warranty team in the sense that, like, things obviously wouldn't have worked properly, and the warranty team is what looks at that.

The -- the maintenance team is more supposed to be preventive maintenance - so, you know, at 150,000 kilometres, you need to grease your caliper pins; you need to flush the train; you need to check your wheels and fix the sander or, like, do, you know, maintenance to the sanders and other components, re-level the train, like, things like that - whereas the warranty team would actually have to -- so for instance, if there's a retrofit where a program in one of the computer systems needs to be changed, the warranty team would be the one that would go in and change it.

EMILY YOUNG: Would that have an effect on Alstom maintenance by making it harder to get access to the trains to do maintenance?

STEPHEN LENNERTON: Absolutely. If this takes time and stuff like that -- so for instance, if the train is scheduled to come in for

150K maintenance but warranty has control of the train because they're trying to do something to it, obviously the train is not going to be able to be brought in for that, and vice versa. Like, they might say, Okay, forget about the warranty thing for now; let's do the maintenance. They're still going to have to do the warranty part after. So no matter what, it's causing that extra step in there.

FRASER HARLAND: Is there a hierarchy between maintenance and warranty? Like, who would get precedence to get their work done if there's demand for the trains like that?

STEPHEN LENNERTON: Well, in the beginning -- in the beginning stages, when the train is still under warranty, I would assume that the warranty team would, for the most part, get the priority to it - not necessarily because their hierarchy is -- or, like, they're in more control of it, but just for the simple reason that the maintenance team can go to another train and do maintenance -- right -- so they would sub out another train that we'd go and do maintenance to that one while the warranty team was working on the other one. So I think that's the way they would make that decision, as opposed to saying, like, I

am -- I am a higher level of management or something like that, so I deem this to be more important to me. The warranty team is the team right now that's supposed to be doing the fixes to the trains because it's still, obviously, under warranty.

EMILY YOUNG: Are you aware of the agreement between the City and RTG at the beginning of service that allowed 13 trains at peak times instead of 15?

STEPHEN LENNERTON: Yeah, we heard -- now, by way of, like, all the legal details within it, no, I never saw a physical contract or anything. But, obviously, when you're, you know, the team that's launching the trains, we are told, you know, hey, we're not launching 15 anymore, we only need to get this number type of thing, so that we know what we're planning and everything like that. So I was aware that that was happening.

I -- it's actually funny, I had a conversation about that with the validation guy one day, like, back in production, and he was like, They won't even be able to keep all 15 trains going; they're going to have to lessen that number. Because you -- there's no -- like, when you build

15 trains and then you want to launch 15 trains, it doesn't really leave much room for error, right? Like -- but I think in respect to Alstom, that was one of their biggest faults is their planning structure was amazing; they were on top of everything, but they never left room for error. So the second something in their plan went wrong, it shattered the whole thing, and they would have to redo all this planning. And of course they planned it, let's say, over a 6-month period, and a problem happens that takes place, you know, a month to fix, that drastically changes that aspect. The Alstom plan for this to go off without a hitch, like, no issues ever, we're just going to plug and play and here we go, but obviously things are a lot more complicated than what the employers, I guess, would want to think. You know what I mean?

EMILY YOUNG: Do you know whether the 15 vehicles for morning peak service was reached, like when it went back to that level?

STEPHEN LENNERTON: By the time I had left, I mean, there might have been a couple of times in there where we hit that mark, I would say. But on a consistent basis, I would say I never really experienced that much. I mean, they may

have said, hey, we're going to launch 15 trains, but I don't think there were ever -- like, I can't recall where there were 15 trains that were working properly in order to do that, like, in my experience.

EMILY YOUNG: Did lower ridership during COVID provide an opportunity to work out more bugs with the trains and get more trains back up to an operational level?

STEPHEN LENNERTON: I mean, in theory it should have, but it didn't change the demand for the amount of trains being launched, right? So even during COVID, I think they went down to 11 trains I think is what it was -- I'm not 100 percent sure, but -- it may have helped a little bit, but they -- they still needed to meet all those intervals. Like, the train needed to be at this station at this time over and over and over again, and in order to reach that, they still needed the same number of trains on the track. Otherwise, you'd have a void area in that time where there was no train to pull into the station.

So they would have to change -- you know, for instance, like a city bus is expected to be at a bus stop at a certain time, so you call it,

they tell you it's going to be there, and you can wait for it, right? Well, if they take that bus out of service and they don't replace it with another one, there's a gap between that bus and the next one. You know what I mean? So it would have had the same effect on -- on the -- on them in that case.

So I would say for the most part no, but in some aspects, they might have gotten an extra train in. But at the same time, they only had so many MVTs. So you could throw every train at the maintenance team: They don't have the people, and they don't have the facility to work on all of them at the same time. So it -- it wouldn't have had that much of a -- of an impact, especially not with the size of issues that are happening, like the wheel cracks.

EMILY YOUNG: Would you say that there was any unnecessary running of the trains that would have sort of speeded up the need for maintenance?

STEPHEN LENNERTON: No, I don't think so.

EMILY YOUNG: So you spoke about there being quite a learning curve at the start of

maintenance for the MVT team. Could you tell us a little bit more about who was brought in to work on that team, how many of them were previously with Alstom construction?

STEPHEN LENNERTON: So by way of, like, exact numbers, I'm not going to be able to remember those, but I know there's, like -- like, the number one guy in seniority right now, he was a Day 1-er. He started Day 1 of the production process. But then you've got two guys after him who had never seen the project until maintenance. And then there's a couple of us that are sprinkled in there, let's say. I'd say there would be, like, five to six now that are there.

And even at that, some of the guys that were brought in from production, they didn't really do very much that translates to maintenance. Like, my tasks specifically related to maintenance while the trains were, like, being dynamic tested, right? Like, when the train needed to be fixed, it didn't go back to production to be fixed. It came to me when it was mechanical. So their experience in a station -- like, one guy who's there, I mentioned Easy before, Malaku: Amazing person, great worker and knew his station very well, but his station

only consisted of connecting some brackets to it and hooking up a couple of hoses, like a couple of rigid hoses, a couple of wiring harnesses, maybe.

So by way of him getting any hands-on, like, testing -- for instance, he can't go out on the track and hear a sound and know what it is, whereas I could drive down the track and I could say, This gear box tooth is broken; I can hear it clicking. You know what I mean? So that kind of knowledge.

So even the people who were hired there didn't all have that level of dynamic training. So it's like their mindset is they're just going to follow this micro, and because they've been following micros all the way through production, they should be able to do this properly. They would have an advantage in the sense of they know where parts are, they know what they're called, they know what certain torque values are, things like that and what tools they would need. That would help with the learning curve, but by way of diagnosing something, you know -- like, I've even seen some of them: They look at something that I know is not right, but they don't notice it because they're not used to seeing it.

EMILY YOUNG: Did Alstom make efforts to try and hire the sort of people who were in roles more like yours who would be --

STEPHEN LENNERTON: No.

EMILY YOUNG: -- well-suited to maintenance?

STEPHEN LENNERTON: Actually, the complete opposite. Like, I was resisted against by the maintenance vehicle manager. He --

EMILY YOUNG: Do you know why?

STEPHEN LENNERTON: Well, because he wants to be right, and he's not. So that -- we're kind of touching into a different -- a bit of a different topic. So, like, for instance, when I was hired, as I spoke before, I was called and asked if I would take part in this brake project before moving on - or if I wanted to, I could just move on, right? So I had had this conversation prior to them. They literally looked at me and said, when this project is over, you go to maintenance because we want you in maintenance - like, the production managers did.

This manager then came in and thought, well, he's not a mechanical engineer or an electrical engineer, so he's not going to be able

to be part of maintenance. The argument to that was the company's not requiring those requirements in order to do the job.

So then, for instance, the day that everybody left from that brake project, I was called upstairs to his office 45 minutes after they left. And I walked in, and he closed the door, and told me that he had fight with everybody to hire me, when I already knew what was happening because he didn't know that these conversations had happened before. So he tried to play it off as though he was, like, my buddy and doing a favour for me by hiring me because he didn't think I was qualified -- he actually told me that was I was going to have a hard time transitioning from production to maintenance because I was not as educated as everyone else, when in reality it was the complete opposite. I had the most experience in the entire country at least, if not the world, for this type of stuff, and I was the best suited for the position.

So right away I knew -- you know, for instance, we would be standing in certain situations where we would be talking, and he would give out information, which I would abruptly

correct because wrong information leads to wrong decisions which leads to problems. So I would correct this, so he didn't like that because it would make him look like he didn't know what he was doing. So there was that turmoil between us, so there was always that game going on.

So what he wanted to do, in my personal opinion from what I saw, is that he wanted to remove the people who could correct him so that he could then look as though he knows everything that's going on. It's what -- in my personal opinion, he's basically, like, a fake it 'til you make it kind of manager. Like, he doesn't know what's going on, to the point where I actually questioned his actual education that he claimed - like, I formally went to management above him and said, I don't believe that he actually knows what he's talking about - because it was becoming concerning. He was literally giving instructions to MVTs that were wrong and then the MVT would carry out that instruction.

FRASER HARLAND: Are you able to tell us who that maintenance vehicle manager was?

STEPHEN LENNERTON: His first name is Hussein, and I'm unaware -- I don't even know if I

can pronounce his last name, but his name is Hussein.

EMILY YOUNG: Do you think, Mr. Lennerton, that Alstom missed out on recruiting people involved in construction who would have been good at maintenance --

STEPHEN LENNERTON: Oh, yeah, I could have put you together a team of 18 people that would have be able to walk up to that train and do anything that was needed without any of those micros. Like, when I went to PC09, I -- so for instance, they looked at me and said, Would you go to maintenance? We need somebody that can flush the brakes. So I trained a guy on the brakes. And then they found some -- Randstad found some little excuse to fire him because they had a bonus incentive.

So they told all the production technicians, if you stay to this date, we're going to give you X amount of dollars. I don't remember the exact number, but if you stay to this date, you will -- you'll have it. Well, Randstad turned around and realized, oh, everybody's going to stay. That's a lot of money. So then they turned around and started nit-picking people and getting rid of

them so they wouldn't make it until that time. They tried to do it and make it a legal thing. When you're there, you know what's happening. So I literally trained this person and then they fired him for, like, some sort of -- like, 2 minutes of misappropriation of time or something like that, like something ridiculous. You know what I mean?

EMILY YOUNG: You said that you thought about five or six people were hired on from construction to maintenance. How many maintenance people were there at the start?

STEPHEN LENNERTON: I think by the time I left, we were upwards around -- like, at one point, we were at 18 people, and people were leaving. They actually hired three people from the test team, but because the schedule was so bad -- like, there was -- like, Hussein took -- put effort into making the schedule as miserable as possible, so they would leave because of that, and these testing guys to me are even better than I am for the maintenance position. So they left for better opportunities, whether it was completely outside of the company or if they just -- like, I know two of them moved to the help desk and stuff, which better suited their liking because they did not want to

work under Hussein. I don't know if that answered everything or not.

EMILY YOUNG: Yeah. No, that's very helpful. Thank you. I'm wondering if you could speak about the transition from OLRTC to RTM or Alstom construction to Alstom maintenance and whether you think that that was a smooth transition, was managed well or not so well.

STEPHEN LENNERTON: Absolutely terrible. Hussein didn't do anything for the -- he was there a year early and had all this time to prepare to get all of our tools and set up the facility, and when I got to maintenance, I had no tools. So for instance, like, when I first started, I was hired, like, number 12, I think, was my first level of seniority. Everyone up to that point got tools, right, then I didn't. So they had a little toolbox and they'd get this tool kit that covered some basic tools, like basic hand tools, nothing too crazy, and then when it got to me, I conveniently did not have any tools. And then the next person who was hired got tools. And then another person got hired and they didn't get tools. And then another person would. And then even at one point -- I had been requesting tools for a very

long time.

And at one point, another gentleman's toolbox broke, and this person had a very good rapport with Hussein. They got along with each other. And his toolbox was replaced in an hour. Within the hour, he had a brand spanking new one. And I had been asking for an extremely -- like, we're talking almost a year I had been asking. So that lack of commitment to making sure that everyone was up to par with what was going on.

And then the mistakes that he was making with purchasing things caused budget issues, which then Alstom stopped approving things that they needed. So for instance, when I went and said I needed tools, they said, Well, no, you don't; Hussein says you have them. So they just went off with what he said, right? So he definitely failed miserably in preparing everything to be set up to launch at that year mark.

EMILY YOUNG: I -- sorry, go ahead. Mr. Harland, I see your...

FRASER HARLAND: Could you just explain a little bit more. You said a year mark, so can you give us a rough indication of what that year was? Was that a year prior to revenue service?

STEPHEN LENNERTON: Yeah -- sorry, a year prior to -- for the sake of the conversation, let's say the year prior to handing the keys over to OC Transpo for their drivers to take over and actually start putting customers on the train, there was a portion of time where they were going through the hiring process and they were supposed to be setting up MSF 2 in order to be able to take on this maintenance, and that is the part where -- for instance, like, for the majority of the time there, the technicians that were hired, the MVTs that were hired, they sat in a room on a computer to do these -- you know, when you start a job and they give you your safety stuff and all that kind of thing, you've got to fill out these little skits that they put up in front of you? They did all those. And then they finished them, but because he didn't have anything together -- and they didn't do anything else other than that.

So, like -- for instance, like, they should have been going and, like, you know, seeing what was going on. Like, they may not have been able to touch anything, but they should have gone and shadowed other people that were working on the trains to get used to the trains, especially the

ones that were just getting there. So they didn't really get exposed to anything until the launch happened and then they're like, Hey, here's the trains; start telling us what was wrong. You know what I mean? So there was no lead-up to that.

And in that time, for instance, like, I remember he bought a -- it's for sheet metal. It's for bending like aluminium and stuff like that, which is a manufacturing thing. We don't manufacture anything in there. Like, we don't make these parts. So it was a completely useless tool that will never be bought, right, and he spent thousands of dollars on it.

So these problems were affecting the budget and affecting, like, the MVTs having access to what they needed in order to get off on a better foot during that time.

FRASER HARLAND: So if I can just paraphrase your evidence quickly, you're saying there was a team of MVTs, of maintenance workers hired in the lead-up to maintaining the trains, and they did not work with the trains at all until they actually took over maintenance. Is that fair?

STEPHEN LENNERTON: They had little training bits in there where, like, you know, they

were -- like, for instance, they were trained on the wheel lathe. So, like, a guy came from -- I believe it was Germany, and he came and trained -- actually, don't take my word for that. They may have sent somebody from America. I know that the machine is made in Germany. But they sent someone to the facility to train them on the wheel lathe, but by way of, like -- by way of going to the train and actually physically doing something to that, it didn't come until way later on in that year, like much closer to the transition. Like, for instance, the trains were already in service when I started in the maintenance position.

EMILY YOUNG: Do you feel like the training that the MVTs received in advance of maintenance got them ready to maintain?

STEPHEN LENNERTON: No.

EMILY YOUNG: What should have happened?

STEPHEN LENNERTON: They should have been shadowing people. That entire team should have followed me around all fricking day, like all day long and listened to everything I said. And, like, I'm not trying to be arrogant in that aspect, but, like, I had an enormous amount of information

that I could have given them to prepare them for what's going on: Hey, guys, you got to keep an eye on this because this is what happens when the train vibrates down the track; you know, so this will come loose or this will happen, so you need to keep an eye on them when the trains are in here. There's little things like that.

Or even just how to take something off. So for instance, like removing a gearbox off, for instance, there's a way to do that, and it's different taking it off than it is putting it on, and it changes when the train has been driven and there's dirt all over it and, like, all that kind of stuff. It changes the aspects of doing the jobs.

So for instance, when maintenance had started -- I remember I missed a day of work and they had to change a gearbox. So when I came in the next day, the operations manager and the number one guy at that time, who was Dennis, came up to me and said, Hey, man, we changed a gearbox yesterday -- because, like, this was a big thing. I had changed all of the gearboxes up until that point. And I looked at them and I said, Well, how long did it take you? And they said, Well,

8 hours. Well, I can change a gear box in 45 minutes, so I looked at them and I said, Well, that's a really long time. Did you follow the instructions? Like, did you put the o-ring in the back? Because that's one of the things that's missed with new guys when they go to try to do this. I said did you put the O-ring in the back, and did you clean off the heat spray and put new stuff on? And they looked at me cross-eyed, being, like, what O-ring and this kind of thing. So I looked at the operations manager and I said, You need to bring that train back to me, and we need to put the proper things on.

And so then he told me, Well, we don't have 8 hours to do that, and I said, Well, we'll do it in 45 minutes, and they doubted me drastically on this, and I explained to the technician what it was, and we changed it and everything was fine.

So there were a lot of gaps in their instruction, and I believe even in that specific situation, I believe Dennis went to engineering and was upset because the instructions that I gave him to do weren't in the instructions he was given. So even if he had followed those to the tee, which he did, the instruction wasn't there to do it. So

they didn't know what to do with that o-ring. So they did what they thought they should do, which is where I believe the issue is with, like, hiring people who aren't necessarily trained in that field, right? Like, when you run into a problem where you don't know the answer, there's -- you need to stop what they're doing and go and get the answer, not guess -- you know what I mean? -- due to the lack of experience.

EMILY YOUNG: So the instructions were deficient, then?

STEPHEN LENNERTON: Yeah. Oh, yeah. Oh, yeah.

EMILY YOUNG: Do you know who would have prepared the instructions?

STEPHEN LENNERTON: That would have been their engineering team, most likely.

EMILY YOUNG: And at what -- so when you're describing this process of them changing the gearbox, not knowing how to do it, was that before service started? Was --

STEPHEN LENNERTON: No, I was on the MVT team at that time.

EMILY YOUNG: So it sounds like they hadn't received proper training on how to change a

gear box before service started?

STEPHEN LENNERTON: Correct. It was a situation of, You're supposed to be able to read this micro at a Grade 9 level. We've provided you with said micro from engineering, so follow it, and that's that.

FRASER HARLAND: Can I ask how you knew what to do with the O-ring? I understand that you're more experienced, but, you know, was there a complete manual that --

STEPHEN LENNERTON: Yes, there were full micros on the bogies. So for instance, Sorel, who built the bogies, sent over two binders that were hundreds of pages - because we have a motor bogie and we have a trailer bogie, so there's two different sets. Most of the instructions are the same in both of them. But yes, I had that.

And then I also had the fact that they had -- at the beginning of the project, when they knew that they needed to do this, engineering before I got there was involved in figuring out how to do this and obtaining the correct information for the production technicians. But like I said before, once maintenance hit, they just said, We don't want any of your information because it's to

build the train, and we want information to fix the train, which a lot of it would have -- a lot of it would have, like, meshed together with each other.

EMILY YOUNG: So the information that you had was from the construction phase, and the maintenance people didn't have that information.

STEPHEN LENNERTON: They had some of it but not all of it.

EMILY YOUNG: And is that sort of reflective of how document transfer went in general?

STEPHEN LENNERTON: In my opinion, yeah. In maintenance, it was -- I remember the first time I went to the supervisor, and I said, Where's the micro for the bogies? I know it's in the building somewhere. Where is it? I want it. And they said, Well, we have control over our version, and it's not ready to be given to you. So it's just, like -- like, when I'm not there, I can't correct anything, and I can't be there 24 hours a day. This is a 24-hour thing; right?

In production, I was there the entire time, so any of these questions that I knew could be asked, right, but then there was also the whole thing of, like, okay, so we don't have the

information, but then telling Hussein, telling somebody to go ask Steve would admit that he doesn't know, which makes him look bad, so they would avoid that at all costs.

EMILY YOUNG: Who is Steve, sorry?

STEPHEN LENNERTON: Me.

EMILY YOUNG: Oh.

STEPHEN LENNERTON: That's okay.

EMILY YOUNG: I was going, who's the Steve who's higher up who has more information? Thank you. Were you often receiving the maintenance documents that you needed late, or did you get them in advance with enough time to train on them?

STEPHEN LENNERTON: It's almost like they would come together with -- so like I said, maintenance is supposed to be a preventive thing, and due to the lack of knowledge on it, it became a reactive thing quickly. So for instance, the sanding thing would happen, so immediately engineering's priority is figuring this out. So very quickly -- well, we'll say relatively quickly, we would get information concerning those injectors. Now, whether they were correct or not, sometimes yes, sometimes no, but that's how they

would work: Oh, this gear box needs to be changed, quick scramble, let's try and find these instructions; if not, let's create them.

Also, at the beginning of it, there was a gentleman called Bashar (phonetic), and he was part of a different entity to the validation team, and he actually had an entire -- his whole job in production was to set up a maintenance manual -- right -- Hussein didn't like him, so they had quarrels between each other, which actually forced him out the door. So he left due to issues with Hussein. He would always complain that Hussein would not let him kind of take charge with what needed to be done, and he would in fact, like, stop him, I guess you would say, from doing what he needed to do, so that was a huge setback when he left because the next people stepping into the position were great at what they did. They were from production. But their whole thing in production was not to do what Bashar was doing. So it created, again, a learning curve in order for them to get up to speed.

EMILY YOUNG: And did that mean that it took longer to finish the maintenance manual that Bashar had been working on?

STEPHEN LENNERTON: I would say yes. I mean, I can't speak to, like, any direct thing because I would not be involved in those conversations, but I would assume that the fact that this person who just spent all that time in production learning all that information leaving, you know, it's going to leave out areas that you might need to consult the person in order to figure out some of the stuff that was going on.

EMILY YOUNG: Did the MVTs have training leading up to service on some of those basic skills you were talking about before like torquing bolts --

STEPHEN LENNERTON: Yeah, yeah. They had to go through torque training. I'm not going to lie to you, I can't remember all of them because by then, I had done -- like, for instance, they made me go and do torque training because it was a technicality, but I had actually done the torque training class like four or five times in production because you have to renew it and stuff. And I had also taught that class twice with the instructor. So it was really kind of ridiculous for me to go and do that again, but at the same time it was a technicality.

So the -- like, everybody had to go through that, but to be honest with you, that's -- like, I don't want you to think, like, this torque training is not some extensive thing. They just go through and teach you that when you torque the bolt, you're stretching it. This is why you don't stretch it too much. This is what happens if you do. This is what happens if you don't. And then you would actually test torquing bolts, and that would be about it. So it was not some sort of elaborate training thing.

EMILY YOUNG: Do you think that it was sufficient to teach the technicians how to properly torque a bolt?

STEPHEN LENNERTON: Yes. I believe the instructions actually covered what they needed to do. I would say yes.

EMILY YOUNG: Was the MSF properly equipped for you to start doing maintenance at the beginning of service?

STEPHEN LENNERTON: I would say no.

EMILY YOUNG: What would have been missing?

STEPHEN LENNERTON: Well, for instance, like, they had to use my old flush cart to flush

the brakes, and the production team had to do that because the new machine that had come in did not get up and running fast enough for them to keep up with it, like, as an example. So when we were going through, like, the maintenance stuff, they weren't touching the brakes. Now, there could be an aspect of that where that has something to do with the warranty and meaning that they can't touch it, but I knew, like, for instance, they still used that old cart, which is now broken, but that was the direction that they went with that. So it would affect other things as well, I guess, like other job situations.

EMILY YOUNG: Do you think that Alstom maintenance was sufficiently staffed going into revenue service?

STEPHEN LENNERTON: No. 18 people is not enough people to take care of that many trains with that many problems. They need more people. They -- they needed to retain people who knew what they were doing, and they needed to hire more people, and they needed to have the people who had been there train the people who were not, basically.

EMILY YOUNG: And they didn't do those

things?

STEPHEN LENNERTON: No. They -- they -- Hussein consistently looked for, like -- for instance, like, Hussein was huge about this. So on the air conditioning system, there is a certain type of gas that you're supposed to have a certain certificate that you get at Algonquin, right? You go to Algonquin for 8 hours or something, like, you do this little course and then they give you a certificate so that you understand what you're doing with this gas, right, because a certain amount of it can't emit into the air for emissions purposes, right?

He was so amazed, like, we're getting this training; like, we're giving you all this training; and literally you never have to do that to the train. Like, it's one of the things that works, and you don't always have to be doing this. So it was basically, like, if he thought he was doing something that was good in getting us training, he would blow it up real big, but it would have, like, a small, small, small impact on it.

Like, one -- with these trains, you can't go to school for trains. There's no

course -- like, I looked. There's no course in Algonquin that teaches you how to build a train, and then especially not one that's never been built before, right? So the training would have had to specifically come from the people with experience.

So again, with one of the biggest faults for Alstom, they wanted to look at people only with an education, and they thought experience isn't good enough. They want to be able to say -- like, for instance, the City comes and says, This is broken because the person that's working on it doesn't know what they're doing. They say, Well, here's his electrical engineering degree; you can't say he's not educated, right?

Whereas, like, for instance, with someone like me, their argument would have to be, Well, he's been here for this amount of time, which, unfortunately, the way things are in the work field, education supersedes experience over and over. While these kids -- well, not kids but people were in school getting this education, I was doing what they were trying to learn about. So it's -- I mean, a good mixture of both is there. I'm not taking away from people who obtain education, but when you can't learn about it

anywhere else other than in that facility. Like, school for that train was production. That was your schooling, and production ended, so there's no more school. You know what I mean?

And then when you have the aspect of training, the trainer knows 100 percent of what they're training. They train the person, and it's assumed by statistics that that person would know 80 percent of what they were trained until they gain more experience, right? So if that person goes and trains somebody else, they're going to leave out information too due to lack of experience, and then as you trickle down the training, you know, it becomes less and less and less. So they would have needed to stay with the priority of the person who knew what they were doing.

And I'm not the only one that could have participated in that either. They were other people that they could have used for certain aspects of training. So essentially when they would come out with -- so for instance, when the -- when they were having problems with the levelling, right, there were certain things we needed to do to fix certain components of the train so that we

could level things properly, so the engineer himself would have to come down and talk to two of the maintenance guys and say, This is what we're trying to do, and they would trial and error it, and that would be their level of training in that aspect.

But they wouldn't sit in a room and have formal training like -- like, for instance, when you're in the legal system, you're going to sit in a room, and they're going to simulate legal systems so, like -- you know, so that you can get an idea of how things work, right, and that kind of wouldn't really happen because there was literally no one there to do it. You can't call somebody at a training facility and say, hey, come and train us on something you've never seen. So it made it -- they were definitely in a difficult situation, but they didn't make the correct decisions in a difficult situation to make it not so difficult, I guess you would say.

EMILY YOUNG: So if they didn't have the people who knew how the trains worked - like you and others - doing the training, who was doing the training of the new maintenance people?

STEPHEN LENNERTON: Well, for instance,

when I did the torque training thing, a guideway tech taught me it. They literally tightened, like, one or two bolts at the frogs and stuff. They checked bolt -- like, one single bolt tightness for, like, the entire track kind of thing.

So it's like, again, I'm having somebody who's never physically worked on the trains teach me, who built them, how to work on the train.

EMILY YOUNG: And so it sounds like, in your view, they didn't have the right people doing the training.

STEPHEN LENNERTON: Well, not -- they did at one point, but they shunned them away. They made it so that they wouldn't -- like, I remember when we were going through the hiring process, tons of people from the floor applied, right, and all of them -- like, they would all come up to me because they knew I could go and say things to people and try to help them out, and they would come up to me and say, Steve, why am I not getting an interview? I just watched this other guy come in off the street for an interview, I have the exact same education that he has, and I've been here for a year. I have all this experience. Why are they

not interviewing me?

And that goes back to the stigma that they thought that us in production were just a bunch of failures because, you know, a deadline didn't get met -- you know what I mean? -- that kind of thing.

There was a lot of negativity pushed towards us. Like, I -- I spoke with Jaime about this when we met before. Like, for instance, I couldn't -- it got to the point where I couldn't turn the radio on when I drove to work because they would talk so badly about a certain problem that I am dealing with, so it would mentally affect me when I was going into work. I would be angry at -- this person is in a radio studio, telling me I don't know what I'm doing, when all he does is push a button and talk into a microphone. You know what you mean? And none of them would come -- I would always say, go to Randstad, apply, come down here and tell us how to do it then. You know what I mean?

So that would -- that was also, like, a huge problem. Like, the media and the outside view of what was going on definitely affected me and other people that were in there. It became a

little bit personal, to be honest with you.

EMILY YOUNG: Do you think that RTM and Alstom had sufficient processes put in place to make sure that maintenance was done correctly?

STEPHEN LENNERTON: I mean, personally I don't because, obviously, the information wasn't there to give, but I could definitely see them arguing that in the sense that, like, they'd be able to provide a binder with, like, what they would consider instructions and stuff like that. So I would say, like, they had a lot of procedures in place, certainly safety procedures were in place, even to the point of too much. Like, the safety issues were -- like, they would -- they made some small issue like a huge safety thing, so you'd have to spend like 20 minutes setting up this safety procedure to do something that takes 5 minutes, when you could just safely walk up to it and do it, right?

So those procedures were certainly there. Even track maintenance and stuff, like, I -- for instance, sig and comms, like for the camera system and stuff like that, I have a friend that worked on the sig and comm thing, and he's like, I'm going down there, and I've got no

instructions; I have no idea what I'm doing; I just have to figure it out. You know what I mean? So there was that aspect in other teams as well.

So I would personally say that no, they weren't there to the point of being accessible to the people who needed them, but I could definitely see them making the argument of, like, we have them -- like, we have them over here; look at this type thing.

So I don't know exactly how to answer that because it's kind of like a grey area, I would say.

EMILY YOUNG: And what was the main barrier to accessing them for the techs in your position?

STEPHEN LENNERTON: Well, they didn't want us touching the train. So there was an aspect of it that they knew in the back -- like, they wouldn't say it, but they knew that they couldn't just let everyone walk up to the train and touch it because they might not do it right. Like, guys were putting levelling valves on upside down and -- you know, like, some guys weren't even -- like, I know there was some guys that weren't even physically capable of torquing the bolt to the

value that it needed, so the bolt wouldn't get torqued to that value. And a lot of the guys would -- like, I don't want to say -- speak poorly to the MVTs, but there were guys who would just say, Well, I can't do it, so, you know, torque mark it, away it goes. Like, there was no way around it.

So for instance, you have somebody like, you know, I'm 230 pounds. You know what I mean? Like, I can torque 400 Newton-metres no problem, right, but you get a younger 22-year-old who's only, you know, 140 pounds soaking wet - you know, never been to a gym before, never played sports growing up. He's not physically in the same strength level as, say, I am, so he would have an extremely large difficulty doing this.

Now, what Alstom should be doing is providing them with what's called, like, for instance, in this specific case, a torque multiplier, which would allow somebody of that stature to do it, which is the correct thing in the work field to do. I don't think anyone should be discriminated based off their physical abilities or anything, right? We have a lot of technology nowadays to allow people to do that. But those

things weren't there to do that. Like, there was one torque multiplier, for the sake of the conversation, to put the coupler -- or -- yeah, to put the coupling system on. But that had a 1,500 Newton-metre torque, so, like, no one in the building could physically do that. You'd need, like, Eddie Hall, strongest man in the world kind of thing.

So -- but when you get to the lesser amounts -- like, for instance, putting a shaft on, like a gearbox shaft, you need a lot of physical strength to do that. So there were definitely those situations that arose. Now, I don't think the MVT did that out of spite. I think they did it out of the fact that they were physically unable to do it and not given the proper things to do it. Like, I don't think it was a malicious action.

EMILY YOUNG: And, sorry, so they just didn't do it because they couldn't to it, or did they ask you or someone else to do it? What was the solution to that problem?

STEPHEN LENNERTON: Well, if I was there, they would definitely ask me, and I would also know what they were doing, and I would approach them to make sure that it was being done

correctly. But like I said, I can't be there all the time, right? And in some cases, the MVTs that were paired up were all -- you know, would all be physically incapable of hitting something -- like, a torque value like that.

EMILY YOUNG: And so would the result be that the bolt is just not torqued to the proper value?

STEPHEN LENNERTON: I mean, in that specific instance, yes.

EMILY YOUNG: And do you know whether --

STEPHEN LENNERTON: There's also knowing the torque value. Like, they may not even know the correct torque value as well.

EMILY YOUNG: Although that would be something that will be in the instructions, would it not?

STEPHEN LENNERTON: Yeah, if they had got ahold of said instructions.

EMILY YOUNG: Okay. Do you know whether Alstom now has the proper equipment to assist technicians in torquing to the proper value?

STEPHEN LENNERTON: I've been gone for over a year, so no, I don't know what changes -- a

lot can happen in a year.

EMILY YOUNG: But when you left, they didn't have it?

STEPHEN LENNERTON: No. There was no torque multiplier for somebody to hit 400 Newton-metres. The torque multiplier was, like, huge, right, because it was used for a 1,500 Newton-metre torque value, so you couldn't turn around and put that torque multiplier on a smaller bolt type thing.

EMILY YOUNG: What would be preventing a tech in that case to access the instructions to find out the proper torque value if they didn't know it?

STEPHEN LENNERTON: Well, for instance, like, when we put that micro onto the computer, that computer crashed and stopped working. Like, it wouldn't turn on anymore, and they never fixed it. So we went from having that torque value in that instance to not. So then the process to get that torque value would be, you know, talk to the supervisor; the supervisor would then go to engineering; engineering would look up said thing, and then the information would flow back down.

This would take time, especially if --

if it's at midnight, let's say, and there's no engineering there because they're not on 24 hours, then, you know, that has to wait for the next time. So for a technician to say, I can't do this until tomorrow, a lot of those supervisors would say, Just get it done because we need to launch the train. So that would create -- again, like I had spoken before about, that would create the incorrect pressure on the technician to get the job done, and they would just go ahead and do it.

EMILY YOUNG: And a failure to torque a bolt to the right level could -- is that a potential safety issue?

STEPHEN LENNERTON: I mean, that's why you have sanding blocks falling off the train. That's why your wheel fell off. Like, that probably has -- like, I can't say 100 percent that's the cause, but I would say that there would be something to do with torque values there or definitely lack of maintenance to the components involved in that said incident, which could be a torque value thing.

It -- I also think that would be a greasing issue. I know some of the axles, where you grease these bearings, don't even have grease

nipples on them, so you can't even physically do it.

FRASER HARLAND: What about the gearbox? Can you just actually explain briefly what goes into torquing a gearbox.

STEPHEN LENNERTON: Okay. So first, you have to have a gearbox shaft, it goes in the centre of the wheel, okay? It has 12 bolts on it, and they have to be torqued in a certain pattern. The torque pattern for those is you torque it to 50 Newton-metres so that everything sets in properly. And to give you the idea of a torque pattern, it would be similar to torquing the wheels on your car. I don't know if you guys -- if everyone's aware, but just in case people aren't, you always go in a -- like an opposite pattern, right? You don't just go around in a circle. You go across from each other, right? So there's a certain pattern to it.

It's not directly the same, but there's a number code to it that you do certain bolts in a certain order. So you'd go to 50 Newton-metres in this pattern. And then you would go to 150 Newton-metres with a torque -- with a torque wrench, but then the next value is you turn the

bolt 135 degrees from that 150 Newton-metre torque value in order to reach the maximum torque value that that bolt takes.

This isn't done with a torque wrench. This is -- you use a -- you would measure out the distance on the bolt and then you would use what's called a breaker bar is what we would use, which is a very long piece of steel that gives you a lot of leverage to be able to do this.

This takes an enormous amount of strength to do. Like, you have to -- like, small -- smaller weighted people would literally slide across the floor when trying to push this wrench.

So then once that's on, you would then apply this heat coating. So there's, like -- it's like a metallic grease that's supposed to prevent the -- everything from heating up too much. You would then put a vegetable grease -- a vegetable-based grease onto the o-ring in the back, and you would place it into a ring where it sits. Then, you would actually physically put the gearbox onto this shaft, okay, and then in all of this, you're torque-marking bolts and all of the little things that go into it.

So you would then put the gearbox onto this. Then there's what's called the torque reaction link, which has two connections that go to the top of the frame of the gearbox and then the other section connects to the frame of the train, okay? So you would torque both of those on.

Then, the shaft sticks through the centre of the gearbox, and you have this little opening where you'd unscrew this plate and there would be three holes and you put another puck inside. It's like a thick piece of metal about this thick, it's got three holes in it, and it's circular, and it sits -- it covers over the end of the shaft, but it also covers over a section of the gearbox to hold the gearbox to the actual train.

Then this -- these three bolts are torqued to 95 Newton-metres. That may have changed in the time. I know that there was revisions on what the torque value needed to be. This also required a washer. Then you put another o-ring that's coated in the same vegetable-grade grease inside another sling in the front, which then you would put your plate back on, and that would seal the front of it.

At this point, you've now installed the

physical gearbox on the train. Then you have two couplings that you would connect the front of the gearbox to the motor of the train, and that would require a series of bolts. And then you would torque that down as well and then that would be it. You would have your gear box on the train.

EMILY YOUNG: Do you know which part of that process was the part that failed and caused the second derailment?

STEPHEN LENNERTON: Second -- second derailment to me happened back in production, so I'm --

EMILY YOUNG: Sorry. The second one in operation, so in September of 2021.

STEPHEN LENNERTON: The one that just happened, where they lost, like, most of the wheel and stuff? To be honest with you, I don't know where the separation from the train actually happened. I don't know if it was -- if the wheel actually physically stayed on the train, or if the wheel, the gearbox, and the shaft came off the train. So there's a hub behind the wheel as well, so if that was neglected, that could cause everything to come off, right?

The other thing too is if the wheel

itself was replaced, that also has a bolt pattern on it, that if that wasn't torqued correctly -- which I don't think would have been the case because that's only 40 Newton-metres, and they would have probably torqued that in sequence properly.

But in that aspect, like, if you didn't torque the shaft to the train properly, absolutely it would fall off. The amount of torque that's going on in there -- one of those motors out of the six motors on one of those trains, one motor is powerful enough to propel both units. Like, it's complete overkill in the power, right, so you can just imagine the amount of torque that's going through that gearbox onto that shaft. So if that's not properly torqued, those bolts are being heaved on immensely.

And then when you -- when you have, for instance -- like, the motor also has assisted braking, so when the train starts to brake, now you have reverse torque on that shaft going the other way. So you're -- so if this thing is loose, you're constantly jolting it back and forth like this while you're going. And I mean, if you take a paperclip in your fingers and bend it like this,

eventually it breaks. You know what I mean? This happens at all levels of metal when you have enough force in order to do that.

So there's a plethora of things that could have happened in that situation. So I don't want to say specifically what it is because I've -- obviously, now that I'm out of there, I haven't been given this information, right?

EMILY YOUNG: Do you think that it would have helped Alstom do maintenance work if the yard had been automated?

STEPHEN LENNERTON: What do you mean by "automated"? I'm not too -- I don't -- I don't understand that. Sorry. Like, if the whole thing was computerized? Like, the -- the train -- like, if Thales worked for the train system?

EMILY YOUNG: No. I think more to do with if the movements in the MSF were automated.

STEPHEN LENNERTON: I think if they cleaned up the facility, it would have helped. I mean, I don't know if anybody's ever seen the inside of that facility, but when I left, it looked like a scrap yard vomited in the middle of the floor, to be quite honest with you. Like, I just -- like, it was a shock too because in

production, the -- Alstom has a thing called 5S, which is a cleaning thing. Like, it's an organization system. And they have what's called a footprint, which is like a -- they -- they literally paint out lines on the ground where a cart sits, right?

Once maintenance started, there was so much all over the place that Alstom didn't implement this 5S system because they, themselves, could not follow it. So the complete disorganization of the entire facility would -- is definitely a major issue. You know what I mean? Like, it's not like -- it's not like they're properly using the entirety of that facility, that's for sure.

EMILY YOUNG: Can you tell us how many derailments there were in the yard before service? You had mentioned that I think there were two at least.

STEPHEN LENNERTON: Oh, man. Okay. So I can't -- I can't give you a specific number because I can't remember them all, but I definitely can tell you that there were derailments that the City never knew about. Like, I remember there was a derailment that happened outside of the shed, and

they actually got a forklift driver to go out and move the chassises over and place them in front of the place so that when the media showed up, they couldn't take a video of it. So I think that was the second derailment out of production.

So the first -- it's actually funny, when I looked at the news, they actually used the picture from the first derailment to talk about it because they could hear on the radios what was going on, so they knew something happened, but they couldn't get a visual on things because they had placed things in front of it.

There was also things like train set 17 and train set 19 were -- collided into each other in the shed about 3 kilometres per hour when a movement was being made. It smashed the entire front of both trains, smashing the windows and everything. This -- there was a lot -- now, I don't know all of the exact details on the engineering side, but there was a lot of talk going around that this was enough speed to actually penned the chassis, which would, then, eliminate the train completely. Like, you would have to change that chassis.

Now, obviously, engineering made

decisions, and I'm -- I'm not going to sit here and tell you that the chassis bent and didn't get replaced or anything. I don't think anything that crazy like that happened, but there were -- like, the City never knew about that. Like, I remember being looked at by one of the managers and being specifically told to not speak about this outside of the building.

EMILY YOUNG: Do you know what the causes of the derailments were?

STEPHEN LENNERTON: It's really -- I mean, I would -- I would blame most of that on the track, to be honest with you, if I were to say. I had a -- like, again, I'm not at that level of engineering, and I did not research that very much, but in talks with -- with, for instance, the validation guy, he expressed all the time, like, these tracks are terrible. You can go and look at the wheel flange and see that in certain -- like you can see markings on the wheel flange that actually show that the track actually rode up the side of the flange too high. So there's that.

There's also -- like, for instance, and the first derailment happened because -- the train was still overtop of one of the switches, and the

switch was operated while the train was on top of it, so it pushed the train off the track, right? Obviously the derailments that are happening on the track, if it's not overtop of a switch, then it's either going to be the train or the track.

Now, again, with the wheel coming off and all that kind of stuff, I don't know if they were overtop of a switch or anything like that to speak on it, but there -- definitely I would say the track is the number one enemy of that train when out there operating. Like, it's -- they have a section of track that they were supposed to be able to go through it doing approximately 60 kilometres per hour, I believe, or even 80, and they have to slow down to, like, 35 or 40 because it's just -- like, the train, like, vibrates and it's just so loud and you can't really do anything about it. So if they were to fly through there too fast, they would probably flow throw the train off the track.

EMILY YOUNG: And so if I'm understanding the timeline correctly, you had left before the August and September 2021 derailments occurred?

STEPHEN LENNERTON: With the wheel one

that we're talking about?

EMILY YOUNG: Yeah, so the one -- so the second one was the gearbox falling off.

STEPHEN LENNERTON: Yeah. So really funny -- really funny thing: With -- with the one that was serious, where the wheel fell off and the gearbox and stuff, my last meeting with HR, I looked at Alex L'Homme and I said you've got months left until you lose an entire piece of equipment off the side of the train, like you have months left, like, I'm warning you. And it was kind of shrugged off, like that's crazy, Steve, we're not going to -- you know, the wheel's not going to fall off. That's a little bit too much, you know? And then, you know, sure enough, there it is.

EMILY YOUNG: And why did you think that was the case?

STEPHEN LENNERTON: Because they're not maintaining the trains properly. Like, so for instance, like -- well, there's a couple -- there's a bunch of things that could have happened in that. Like, again, I don't know if the wheel specifically came off with it or not, or if it was just the gearbox. I did hear from technicians who had talked to me that they had installed the gearbox in

MSF 1, and when they literally went to drive the train out, it fell off the train before it even made it out of the bay and smashed all over the stairs and stuff like that.

To -- to speak to the issues that were out on the track, like, for instance, behind the hub, there's, like, a -- there's these grease nipples to grease this bearing, right? In order to grease it correctly, you have to take out a set screw on the other side, so when you push grease in, the bad grease has to come out. Also, if you have a sealed area and you push fluids or grease into it, air is what pushes that in there. So now you've pressurized this compartment, which is not supposed to be pressurized. That puts pressure on the bearings and it makes them sit weird and then they grind and stuff like that, right?

Now, those set pins are very difficult to take out. And I know that there were a lot of guys who were like, I don't want to deal with that, so they would just inject the grease. They would think, Well, I'm an engineer, right? Like, they've been to school, they've got their mechanical engineering, and they think it's okay to just pump the grease in without taking the set screw off,

because why would anything happen -- right -- like, the grease is still in there. But because they don't understand the whole thing, you know what I mean, they're making decisions that are not on their shoulders to make, so to speak.

EMILY YOUNG: And when you say that they weren't doing maintenance properly, could you sort of summarize the main points of weakness that you saw?

STEPHEN LENNERTON: Well, the due diligence to go through everything. They're very behind. Like, the kilometres are way higher on the trains than where they're at ready to do maintenance, in my opinion, at least when I was leaving. I would say specifically to just not caring. Like, when I touch the train, I can't help my brain but think, like, humans are going to get on this thing. Like, I may not know them, I may not care about them, but, like, other people do, and I should at least do my job well enough that they're not going to get hurt, right? But some of them are just there for a paycheque, so, like, I'm not going to get down there and get all dirty and crawl on the ground to take this one pin out when I can just pump it in.

So I'd say, like, maintenance on the brake system for sure, like, by way of flushing the fluids and stuff, they weren't doing that properly. I mean, I remember walking through the bay and asking the manager or the guy for the production guys that are flushing the train being like, What are they doing over there? And he's like, Oh, they're flushing the brakes. And I would say, Well, I can see the flow metre on the machine that I installed, and it says zero, so you're not even pushing any fluid. Like, they're not doing it correctly. So they'd hook this machine up, turn it on, and they wouldn't have it set right, so it wouldn't do anything to the train, and then they'd disconnect it and be like, yep, done, good to go, and off they would go. So there's that.

The wheel lathing is not consistent for sure. You'd have some -- so for instance, like, the wheel lathe system works -- they've got to break it down into sections, right? When you're lathing something that's metal, especially that size, you don't take an inch off at a time. That's a large amount of material to take off under that level of force. So you want to take it off in, like, 2 to 3-mil increments, you know what I mean?

So a lot of guys would do it correctly. Like, I worked with a guy who would 100 percent -- he didn't care what timeline they were given - he was going to do it properly. So he would set it up so that the machine would lathe the wheel on three separate occasions.

So for instance, you need to take a whole entire mil off, he would make the machine divide that by three and take it off in three smaller increments, which is the correct way to lathe something. But then you'd have people who want to look good in front of the managers, and they would say, we need to take a mil off, so they'd say, whatever, let's do it in one shot. You know what I mean?

So that's going to have an effect on it too. It leaves like a -- have you ever touched, like, a record, and you know how it's, like, has divots in it if you run your finger across it? It would create the same effect to the wheel, which you think is not a big deal, but now you've got separation, so you've got these, like, high points and low points on the wheel, and the high points are making contact and the low points aren't, so you just lost a certain amount of your surface area

on the wheel touching the rail. You know what I mean? So that's the level of importance to that.

And that specific task also speaks to my analogy of, like, the trainer came and trained the couple of guys that were in there, and they got about 80 percent of the information, right? Because they don't have enough experience yet to learn all the rest of it. Well, those MVTs are the ones who showed the next one, and then the next one and the next one, right?

So when you've got a guy there who was trained at the end, and the other ones that have more experience aren't there, he's going to make decisions based on what he knows, right? So that's where they're making wrong decisions. And again, to the technician's defence, they're put under pressure to get things done, right? So cutting a corner is, like, you know, in some cases to them, they think they're saving their job, so to speak.

EMILY YOUNG: I'm conscious that we've gone a bit past 6. Is it okay for everyone if we go for a few more minutes?

STEPHEN LENNERTON: I'll sit here all night with you if you want. It doesn't matter to me. This is my last chance to be able to help this

project. Like, I can't work there anymore because of what happened, so if you've got more questions, ask away. I'm not going anywhere.

EMILY YOUNG: Okay. And one more question, going a bit back to sort of the worker side of things: Is there a high degree of turnover of Alstom maintenance employees?

STEPHEN LENNERTON: I mean, it's hard to say, like -- to say, like, it's a high rate of turnover because you don't really have very many of them, but you get this -- so for instance, like, an MVT gets paid $60,000 a year, right? In the world of, like, a 22-year-old, let's say, or a 25-year-old, that's a lot of money, right? That's a pretty hefty paycheque for someone like that, especially during the times that we're in right now. So someone walking in who has ability to go to another job -- like, for instance, myself, I could put my résumé into a job searching thing, and I'd have a call right away because I have a very extensive résumé, right? Like, I've worked a lot in the country. But when you've got guys who are just getting here and they don't have that résumé, they're stuck there.

So what you found was a lot of higher

qualified people would come in, and they'd be like, this schedule sucks, the organization isn't here, I don't have any fricking tools, I don't know what I'm doing, so I'm just going to go to this better place; This other place offered me the same amount of money or even, like, a little bit less, but it's much more -- it's a lot nicer to work there, so I'm just going to take off. You know what I mean? So you'd lose people like that for sure. I guess you could say there's a high turnover rate because, like, when I was hired at number 12, like, I remember three people quit within, like, the first month or so that I was in that position, and these were people from the testing team and stuff like that, like people I knew.

EMILY YOUNG: So we want to speak briefly about some of the technical issues that arose on the trains.

STEPHEN LENNERTON: M-hm.

EMILY YOUNG: First of all, the wheel flats.

STEPHEN LENNERTON: Yeah.

EMILY YOUNG: Can you tell us briefly, if possible, what Alstom maintenance's response was to that?

STEPHEN LENNERTON: Well, when you get a flat spot, you bring the train in, and if the flat's -- so in the world of trains, if you have anything that's really, like, the size of a dime, let's say, and it doesn't divot in more than a certain amount of millimetres -- which I can't off the top of my head remember exactly what that number is, but if it's that small and it's not disrupting, it's actually recommended that you just drive the train until it works itself out. It will actually -- like, over time, it will basically beat itself back into submission kind of thing.

But when you get bigger ones that are, you know, the size of a toonie or even larger, then you have, like, a massive flat spot. I know it's a little bit of an exaggeration, but you've almost turned the wheel into part of a square, so then you would have to wheel lathe it, and that's the extent of what they do in response to that. You know what I mean?

The causing of it, though, is, like, different. Like, I don't think they would necessarily -- like, nothing that the MVTs are doing are causing the trains to go out and have flat spots unless they're, like, totally neglecting

the brakes and stuff like that, but at this point, Wabtec is still there doing maintenance on them as well, so I don't think it would be to neglect. Like, to answer your question, the wheel lathe is their response to flat spots.

EMILY YOUNG: And were there any problems getting the wheel lathe working? I mean, we understand at the beginning --

STEPHEN LENNERTON: Oh, yes. Oh, all the time. Always this side down. So there's two sides to the wheel lathe, so you could do a whole bogie at a time, and a lot of times, it's like, you know, the other side won't work. Like, it's got an error; it won't let us do anything, right? This could be due to the fact that, like, I know there's safety features in that thing if, you know, you avoid a couple of things or go to far with a couple of things, that might cause the errors. I personally was never formally trained on the wheel lathe, and because of that, I would always tell them, I'm not doing that on my own. I will assist somebody who's trained, but because you have not brought me the number one guy to train you, I'm not going to take -- I don't want training from somebody who doesn't know 100 percent of the

information, so I would refuse to do that. Some other guys would do that as well.

But yeah, that thing was down all the time. Like, there was one time where the whole thing was down, and they had a guy come in, and he working there for weeks on it, like pulling the whole thing apart, so -- and to their defence, like, that's more of the company-side thing, like the company who provided it. Like, it was like a $2 million device. You know, you'd expect it to do $2 million-worth of amazing things, not break. You know what I mean? So it's not entirely their fault for that. Like, you can't point a finger at them.

EMILY YOUNG: That's OLRTC's responsibility.

STEPHEN LENNERTON: Yes. They're to maintain the machinery and stuff like that in the building. Absolutely.

EMILY YOUNG: And what about the cracked wheels? Can you talk about the cause and the response?

STEPHEN LENNERTON: That was a nightmare. Well, I can't speak to the cause because I'm not 100 percent sure. I was told certain -- for instance, like, I was told by a

couple of Sorel guys -- I had a pretty good rapport with Sorel in Montreal, and I was told that when they transport the wheel, there's a brace that they put onto the wheel, and sometimes where those cracks were were around these little set screws, and that set screw would be proud past that piece of metal -- or sit higher, sorry. And when they manoeuvred this brace around and put it on, it would put pressure on this set screw, which could potentially cause that crack.

All of the cracks that I saw - and I found one of the earlier ones - were all coming from that set screw hole, and it was also on a piece of -- like, the metal that it was cracking was not the actual, physical, whole entire wheel, right? Like, there was a piece that was overtop of it that was the part that was cracking. Not to take anything away from the severity of the crack, but that was more or less what was going on.

Now, I don't know 100 percent that that is what caused it from Sorel. It could be the fact that there's so much banging around, and the track -- from the tracks that are so bad that this could be causing it, and that could be a weak point on the wheel, but, I mean, judging from what I saw,

the set screw being out of there and stuff like that seems like one of the most plausible ideas or scenarios for that.

EMILY YOUNG: What did maintenance do to fix that?

STEPHEN LENNERTON: They hired a bunch of random people from a hiring company and brought them in to look for them. So I would sit in the sand bay with an iPad, and the train would pull in, and I would go on, and I'd put my lock on and make the train safe for all these workers, and then they would go to each skirt, open the skirt with a flashlight, and they would inspect each wheel. So this went on for a while - for, like, maybe 2 days - and I went to management, and I said, how are you supposed to check for cracks through a bunch of grease and debris? Like, they're not cleaning the wheel off. Like, you're telling me they can see through that?

So then they had to change it. They had brake cleaner, and they would spray the brake cleaner onto it. Well, now they've washed off all of the corrosion protection. So you need to put the corrosion protection back on, but then we're not doing that either. So, like, again, it was

this reactive thing. Like, oh, this is stopping us? Okay, this is the quick solution; let's do this, you know?

So, basically, a whole bunch of random people off the streets from a hiring company, you know, came in outside of the union -- so one of the loopholes that the company uses is that if they hire a full fleet -- so let's say they decide that they need 18 people to work on an MVT team, right? If they hire all 18 people, okay, then from my understanding, what I discussed with the union, that means that from that point forward, if they have to hire anybody else to work on the train, they have to be an MVT, right? And the company does not -- like, Alstom does not want to hire more people. It's expensive. So they keep it so that they don't hire that full fleet of people so that they can use a loophole to bring in other people that are there.

Because I remember, like, a lot of guys went to the union and were like, Hey, why are you bringing in these random people and not hiring MVTs? And this was roughly what was explained to us. There may be more legal details in that that I'm unaware of, but generally that's what it seemed

as though they were doing. But people who had never seen the train, some of them, like, couldn't even -- some of them couldn't even communicate it to me properly, like, at all. Like, they couldn't communicate to me properly in English to even relay what they were finding, right? And it got to the point where that procedure got so redundant and so annoying to the people that were working in there that I can almost guarantee you that, at some point, they weren't checking them properly.

There also came this time where we had assumed or they had assumed that, like, the cracks were caused by some sort of issue not on the track, so we had found the ones that were cracked and that, you know, people wouldn't look as hard for them because we weren't finding them anymore. So there was that. That was a nightmare. That whole entire procedure was an absolute nightmare.

EMILY YOUNG: And for the door problems, my understanding is that's sort of more a computer issue.

STEPHEN LENNERTON: M-hm.

EMILY YOUNG: Is that something you know about?

STEPHEN LENNERTON: I mean, I

personally know the gentleman who installed those doors, and I'll tell you he did his job the same way I did. He put those things in there exactly for the design. So I would say the electrical would be more of the issue than anything. I mean, I remember at the beginning they went and -- they sent me to Canadian Tire to buy remote controlled lights so that they could put them in the fronts of the trains with the driver so that they would have these other people from another hiring company stand at the platform and push a button to turn said light on so that the driver could know that the doors were closed. Like, that was one of their solutions to it.

EMILY YOUNG: And the switch failures, that's something that's more track-related?

STEPHEN LENNERTON: Yeah, that's too outside of my spec to speak on.

EMILY YOUNG: And I think there's also been an issue with track buckling, but you've already told us about your view on the quality of the track, so...

STEPHEN LENNERTON: I don't know anything about the construction of tracks either, so I just know that I can see that the track is

supposed to be straight and it's not, you know. I think anybody could see it.

EMILY YOUNG: Do you have any sense as to the reason for all of these issues with the vehicles that arose after service started? What could have mitigated those problems, prevented them from arising?

STEPHEN LENNERTON: If we could get rid of winter, that would be basically the main solution. I mean, maybe store them, at least, properly. Like, basically winter is our downfall, humidity. Like, for instance, those coils in the roof were exploding when it went through the wash bay, so just the water, the salt water that they spray with -- or not salt water, sorry, but there's a chemical in the water to clean the trains, and this thing would drive through and it would explode. Sorry, "explode" is a very strong word here. It wasn't like there was a detonation, and then there was shrapnel everywhere. It was just you'd hear a loud, thunder-like pop, and then obviously the train would cease to work at that point, and then you'd have this coil that's just like, you know, all covered in soot from basically some crazy electric arc that went on in there. And

their solutions were to change hardware, clean the bay that it was in -- like, clean the little box that it was in, but it was all not actual solutions to the problem.

EMILY YOUNG: Do you think the reliability of the trains would have increased if there had been a burn-in period?

STEPHEN LENNERTON: What do you mean by a "burn-in period"?

EMILY YOUNG: More time for the trains to just run the full length of the track and figure out whether there are bugs that needed to be resolved.

STEPHEN LENNERTON: I think if we did that, you would have delayed launching the maintenance, for sure. You would have delayed it because you would have found all this stuff, and stuff would have started falling off before we had customers on there. I mean, some of that is because, like, for instance, sanders were falling off -- I don't think any of this stuff made the news like big things, but, like, the sanding block on the first one has, like, a 5-pound piece of metal that has, like, a -- it has an angled piece on the front which is to deflect things away from

the wheel.

When they replaced -- they have to take these off to lathe the wheel, and when they do that, one of Alstom's rules -- and this is something that would come from production training. When you take hardware off -- a crush washer, in my opinion, can only be used once. To their standards, they can use it twice, but a locking nut needs to be replaced every single time, and that was not happening. So things like that, like reuse of hardware and things like that is also causing certain problems. They may have corrected that problem by now, but that for sure.

But basically, like, in my personal opinion, like, these trains do not run in our weather conditions, period, full stop. Like, so unless you get a new train, in my personal opinion, these problems will never go away. Like, it rides too low for the amount of snow that we get, and then, for instance, the snow deflector - or we'll call it a snowplow - that sits on it on an angle is a flimsy piece of rubber that you can bend with your hands, so it's not going to deflect the type of snow we get. We have a pretty intense winter. You know what I mean? So that's going to be your

biggest downfall to it, in my opinion.

EMILY YOUNG: Has the reliability of trains and the level of maintenance improved over time?

STEPHEN LENNERTON: Not when I was there. I mean, guys were learning stuff, I would say, and, you know, you had your core group of people who were, you know, hellbent on making sure that things were done correctly, but, I mean, it's not like when I was leaving, they were launching all these training things and all this information was coming out, you know what I mean? Like, we were getting a new grease gun when I left. Like, that was, like, the big thing. Like, oh, they bought a new Milwaukee grease gun. It's like whoop-de-doo, like, you know, like, I need way more stuff than that. Like, I personally, like, estimated, like, if they gave me a budget, I would have needed anywhere from, like, 100 to $150,000 worth of tools.

EMILY YOUNG: Do you think that RTM and Alstom maintenance were partly overwhelmed by the number of work orders that were coming through?

STEPHEN LENNERTON: Oh, yeah. Oh, yeah. Absolutely. Absolutely. I mean, you had --

the thing that made it overwhelming is, again, you have somebody -- so you have a guy who takes an iPad, has never seen this train before until he's started at this job, right? So he's got minimal time seeing this. He's going to walk up to something - again, never seeing it before - and look at it, and then have to tell somebody if it's right or wrong. You know what I mean? So, like, for instance, like, in my case, speaking with Jaime, she's giving me legal information about, like, the summons, let's say -- right? -- and so I'm asking questions because I've never seen a summons. So I can't look at her and say, Oh, I know everything about this. Like, I've never seen it before.

So now you got, like I said, somebody who walks up, and it's like they say, Oh, this is okay, but then I'd walk up and say, No, this is bent; like, this is supposed to be like this; or this isn't working anymore; or do you hear that sound? That means this is broken. Like, this is leaking air, or, you know, look, this has fluid on it; like, this isn't supposed to be wet. So, like, they don't see those things. They just think -- you know, recognizing water versus hydraulic fluid,

you know, like, these kind of things. They don't know that. So then you make an order that says this is what's wrong, let's say, and then you have to send somebody out to try and fix something that's not actually there.

So now the next person goes who's never seen this train before, walks up to a situation that somebody else said that something's wrong. Now, if anybody with half a brain looks at that, they're going to think, well, if I don't do anything to it, then it's obviously not fixed, right? Like, if I'm walking up to something, and it's broken and I don't change it, then it's obviously staying in a broken stage. So if they say something's broken and it's not broken, then the person's going to alter that item, right, and once they've altered it, now it's for sure broken. You know what I mean? Or not functioning or not installed properly.

And this is a continuously snowballing effect, right, because now the first person who found something thinks they know something, so then they go and tell the other, Hey, I know this - like, I did this; I know this. But their information is wrong, so they just passed wrong

information on to the next person who then goes, Hey, I've been educated by that guy, so now I'm going to educate this, and then you just -- like, you see the snowball effect that's happening. You know what I mean?

And that aspect of it, when I was there, was insanely, insanely frustrating for me, like, mentally because they wouldn't listen to me either, right? Like, I'd say, No, that's on backwards, and I remember one guy turning around, looking at me, and being like, I'm a mechanical engineer and you're not, so I say that's right. And it's like, well, I've fixed that over a thousand times in the time I've been here, and I'm telling you it's wrong.

And so it got to a point where I didn't want the conflict anymore. I didn't argue with them anymore. It was getting to the point where I had to give up because I was so overwhelmed by everything that was going on. I mean, and I know that's continuing to happen. Like, and that's a very scary thing to me, like, for the fact that we put humans on that thing and fly them up and down a track at 80 kilometres an hour. You know what I mean? Especially for, like, levelling systems and

stuff like that. You have to put things back the way they're supposed to be, to the design to the design of the train, to even have a small chance of this thing working.

EMILY YOUNG: So the people at the beginning of service, I understand they were City staff who were looking at, you know, the track and the trains and spotting issues. Sounds like your view was that they weren't properly qualified or trained to be doing that?

STEPHEN LENNERTON: I mean, qualified, sure. You can come in with whatever education you want, and if you want to say that that's qualified, sure. When you're looking at the track, I don't know because I don't know what kind of experience they have. But my point -- my direct point to what I'm saying is that when you don't retain the experience, you're not going to be able to pass on the things that happen. I know what the inside of the HPU looks like. There's only four other people in Canada who know that, who have opened up an HPU. I'm the only one in Canada to rebuild two calipers. None of the MVTs have ever seen the inside of a caliper, so how are they going to know how it works inside. You know what I mean? To be able to say

that's not doing what it's supposed to do type thing, right?

So I would say that it's not necessarily that they're coming in unqualified in the sense of, like, you know, education gives you qualifications. I think it's the fact that they just detest experience there. They don't want somebody to tell them they're wrong. Like, Alstom will never admit they're wrong. They'll say it's because of something else. You know what I mean? You really got to prove to them that it's their fault before they'll make any admittance to it, right? So that's definitely -- that's horrifying to me, to say the least.

EMILY YOUNG: You mentioned earlier that there were some occasions on which Alstom maintenance people had pointed out or noted issues with the trains that meant that they, according to the rules, shouldn't go out on the tracks, and sometimes those trains still went out?

STEPHEN LENNERTON: Yeah, me specifically.

EMILY YOUNG: Could that lead to failures on the track and --

STEPHEN LENNERTON: 100 percent.

EMILY YOUNG: -- potential safety issues?

STEPHEN LENNERTON: Yeah, absolutely. Like I had said, I had notified my supervisor, Fakah, hey, this pipe on the main line of our brake system is physically leaking. It's dripping oil. I need to disconnect that, then I need to reconnect it and see if it's the actual Parker fitting that's not working or if I need to replace the hose altogether, and then I need to re-flush the train and re-setup that braking system, and then I need to cycle it and see that it's working before it goes out. That means that this train is not going anywhere, right? But it's just a little leak to him. He thinks like, oh, it's just a little thing, and because he's not mechanically sound like I am or with the same experience on the brakes as I am, so he just thinks that's, you know, whatever. Like bit's just a little leak. Like, what's the worst that could happen, right?

Well, that thing starts leaking, and the next thing you know, by the other end of the track, we've lost a litre of fluid and the HPU throws a low fluid fault, and now your brakes are locked up. You got to rescue the train. You know

what I mean? And that causes more -- now you got to stop the whole track to get the guys out there to tow the stinking thing back. And it's all just so that -- like, that whole scenario is so that Alstom can say, Well, it happened out there on the track; it has nothing to do with us. You know what I mean? So I made a work order for that and nothing ever came of it. It got launched. Like, the train got launched.

So that specific situation, like, infuriated me. Like, I was extremely angry that that was happening because, like, I've had to tell my own family, You are not allowed to get on the train. Like, my sister wanted to use this train to commute, and I told her, You are literally forbidden from getting on the train; like, do not do it. You know what I mean? So she won't ride them for those type of reasons because I was seeing that in front of my face. You know what I mean? So it's alarming.

Like, I remember on train set 6, I wasn't allowed to do anything because it was in the shed, and I would walk by this train, and I could smell that the brake pads were literally melting off the train. There is a brake failure here. I

can smell it -- like, whatever, right? And you're walking by these warranty technicians that are supposed to identify that -- or even the Wabtec team, right? And you go to them and say, Can you not smell that? And they're like, Yeah. I said, Well, it's coming from here, so do something about it. And they're like, Listen, I don't have a work order for it; I haven't been told to touch it. Or, like, Wabtec would be like, It's not part of our warranty until it's brought up to us, and then it would be this big, like, I don't want to deal with it. And then I'd go in and say, This is a fricking problem; we need to do it. And they would tell me, like, Stay in your lane, Steve. Like, fill out your check sheet. It's not part of your check sheet, you know, leave it alone. And it would drive me mad knowing that this -- like, because now it's going to make flat spots, and then I'm going to have to fricking lathe the damn thing, or, like, whatever, we're going to have to keep the train back and have it lathed again.

And then the thing's going to melt -- I remember taking two calipers off the train that at some point were physically on fire because they were malfunctioning so bad, and it's like, I'm

taking these off, and it's alarming me because there were people sitting above it. And, like, when they did the testing for the fire resistance in it, it didn't exactly pass with flying colours. You know what I mean? And to think that there's, like, an open flame underneath someone who's sitting on the train, like, it made my blood boil, so to speak. I mean, you can probably tell that I'm getting agitated just talking about it, but it's -- like, it was so horrifying, and that's part of the moral reasons that I left.

Like, I personally believe that they're going to kill someone, like a customer. Like, they're going to do -- it's going to happen. We're headed in that direction. Like, when I was speaking before about the sanding block, if that falls off at 40 kilometres an hour and bounces up onto the platform properly and hits someone square in the chest, a 5-pound object at 40 kilometres an hour, that person's gone. Like, that's it for them, you know what I mean? And that's horrifying to me that that's -- so I -- like, that's part of also the reason that I left. I would not be able to mentally handle someone being, like, deceased because of potentially an action of a team that I'm

on. You know what I mean? So that was also -- sorry. That was a little bit touchy for me there.

EMILY YOUNG: If you saw something on a train that you thought was, like, an imminent safety issue, who could you talk to aside from your manager to -- if you had a real concern, could you talk to the -- contact the City's chief safety officer or something like that?

STEPHEN LENNERTON: No, no, no, I could never do that. I would have to contact somebody within Alstom. And to speak on that, we're during COVID, right? Like, 90 percent of the facility is sitting at home, right? So they're not even there. Like, when we were in production, if this manager who's like, let's say, an EPU manager told me something that was wrong, I'd go right to the head of the entire thing and say, This is what's happening; stop doing it right now, or I'm going to go sit in a chair, and you're going to sell no trains until you fix it, and that would make them jump, right? But now I don't have that say anymore, so, you know, the only thing I could do is make this work order, but they had so much control over the work order that they would just bypass it, right? And then it's like, what is the purpose of

me being there? Like, why am I even bothering, right? Like, I need to report this, and I'm -- the only reason I'm reporting it is so that I'm not liable anymore. Like, that's what it came to for me. Like, I have to put this into the system so there's a record of it. Like, I've reported it so that it doesn't come back on me. At least I've passed it on to somebody else. But that's a really bad way to run a facility like that, you know what I mean? Like, it's like I said, we're putting humans that other people love on the train. Like, we're putting other people's family members on there. So it's alarming.

EMILY YOUNG: Mr. Harland, do you have any more questions?

FRASER HARLAND: Well, I think, Ms. Young, you and I could probably talk to Mr. Lennerton for another several hours, but given the time and given especially the court reporter's time, I think we should probably wrap things up soon.

EMILY YOUNG: Okay. Well, I think that's all that I have for now, and we'll let you know if there's any need to have Mr. Lennerton back.

STEPHEN LENNERTON: Well, thank you very much to everyone that's involved in this because this is very important that this is happening, and it's wonderful that I got to partake in it.

-- Concluded at 6:31 p.m.

REPORTER'S CERTIFICATE

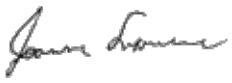
I, JOANNE A. LAWRENCE, Registered Professional Reporter, certify;

That the foregoing proceedings were taken before me at the time and place therein set forth, at which time the witness was put under oath by me;

That the testimony of the witness and all objections made at the time of the examination were recorded stenographically by me and were thereafter transcribed;

That the foregoing is a true and correct transcript of my shorthand notes so taken.

Dated this 13th day of June, 2022.



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