



COMMISSION OF INQUIRY RESPECTING THE MUSKRAT FALLS PROJECT

Transcript | Phase 2

Volume 14

Commissioner: Honourable Justice Richard LeBlanc

Wednesday

20 March 2019

CLERK (Mulrooney): All rise.

This Commission of Inquiry is now open.

The Honourable Justice Richard LeBlanc
presiding as Commissioner.

Please be seated.

THE COMMISSIONER: All right, good morning.

Mr. Argirov, you remain affirmed this morning
and cross-examination next by Edmund Martin?

MR. SMITH: No questions, Mr.
Commissioner.

THE COMMISSIONER: No questions. Okay.

Kathy Dunderdale?

MR. HEWITT: No questions, Commissioner.

THE COMMISSIONER: Former Provincial
Government Officials '03-'15?

MR. J. KING: Good morning, Mr. Argirov.

MR. ARGIROV: Good morning.

MR. J. KING: Justin King on behalf of former
provincial government officials between the
years 2003 and 2015. Just a few quick questions
this morning.

Earlier in your testimony yesterday, Mr.
Learmonth asked you if you had any
communications with Government of
Newfoundland and Labrador – either political
officials or bureaucrats – prior to financial close
in late 2013. Do you recall that line of
questioning?

MR. ARGIROV: Yes.

MR. J. KING: Okay and I believe you
answered no to that question.

MR. ARGIROV: Correct, no.

MR. J. KING: Okay.

And you also stated yesterday – and also in your
interview – that your client was the federal
government and the lenders?

MR. ARGIROV: Correct.

MR. J. KING: Okay.

And would you agree that given that your client
was the federal government and the lenders,
there was no expectation that you would be in
contact with provincial government officials
prior to the release of your reports?

MR. ARGIROV: I do agree.

MR. J. KING: Yes.

In terms of your scope of work and your
reporting requirements, would you agree that the
findings made in your reports would remain the
same regardless of who your client was?

MR. ARGIROV: Yes, they would.

MR. J. KING: Okay. And that would be based
on the scope of work itself?

MR. ARGIROV: Correct.

MR. J. KING: Okay.

Would you also agree that given your detailed
scope of work that was reviewed yesterday, the
completion of your mandate could be considered
a form of oversight over the Lower Churchill
Project itself?

MR. ARGIROV: Correct.

MR. J. KING: Okay.

Thank you. That's all my questions.

THE COMMISSIONER: Thank you.

Julia Mullaley, Charles Bown – not present.

Robert Thompson – not present.

Consumer Advocate?

MR. PEDDIGREW: Good morning, Mr.
Argirov.

MR. ARGIROV: Good morning.

MR. PEDDIGREW: My name is Chris Peddigrew and I'm representing the Consumer Advocate who represents the 300,000-or-so ratepayers in the province.

Just got a few questions for you today. By the time it gets to me, usually some of the things I was going to ask are already asked, so hopefully I won't have you up there too long.

Just returning to the RFP process. A few questions about that, about how you were retained. Who made the decision to select MWH as the independent engineer? Was that a Nalcor decision?

MR. ARGIROV: Yes.

MR. PEDDIGREW: Okay. And was there an interview process with that?

MR. ARGIROV: Of course, yes.

MR. PEDDIGREW: Okay. And how many interviews?

MR. ARGIROV: There was one interview, this was beginning of May.

MR. PEDDIGREW: Beginning of May just one interview.

MR. ARGIROV: Yes, that's right.

MR. PEDDIGREW: Okay.

MR. ARGIROV: Yeah.

MR. PEDDIGREW: And was there any involvement of the federal government in that selection process?

MR. ARGIROV: Well, not directly but perhaps there was a consultation with the federal government, but I'm not aware of that.

MR. PEDDIGREW: Okay so your only exposure during that selection process was with Nalcor?

MR. ARGIROV: Correct.

MR. PEDDIGREW: So once you are successful in – or on the RFP process, just wondering what steps did you take to familiarize yourself with the process. Was there a package documentation that was given to you? Did you ask for certain things?

MR. ARGIROV: Well, there was a kickoff meeting which is normally how you start any engagement –

MR. PEDDIGREW: Right.

MR. ARGIROV: – on a project and then a lot of things were already stipulated in RFP and execution plan. So, all documents that were listed and were related to this first phase was supposed to be presented.

MR. PEDDIGREW: Right. So any studies or reports that had been done about the project, prior to you being successful in the RFP, were they – one thing in particular I'm wondering about is a Joint Review Panel report. Are you familiar with that document?

MR. ARGIROV: No.

MR. PEDDIGREW: Okay, if we could just call it up, Madam Clerk, P-00041, please.

Sorry, I realized I just sort of put that to you on the spot, so I just wanted to at least show it to you before I – so if we look, this is a report of the Joint Review Panel of the province and Canada –

MR. ARGIROV: Mm-hmm.

MR. PEDDIGREW: –in relation to the Muskrat Falls Project. And I believe the date of this, if we could just scroll down a little bit, August 2011, so this was done well prior to your retainer. So was this anything – was this report provided to you upon your retainer, do you know?

MR. ARGIROV: I have no recollection. It might have been provided to the team but I –

MR. PEDDIGREW: You have no recollection of seeing it?

MR. ARGIROV: No, I don't.

MR. PEDDIGREW: Okay.

In terms of your site visits, so you said, I think, about twice a year you would be up at the Muskrat Falls site.

MR. ARGIROV: Correct.

MR. PEDDIGREW: Mainly in the spring and the fall.

MR. ARGIROV: Yes, not only Muskrat Falls, but every other sites. If we have pretty good points to review and to see, it depends on the progress of each of the sites. For example, sometimes we may go to Churchill Falls to see the switchyard –

MR. PEDDIGREW: Right.

MR. ARGIROV: – progress, sometimes we may not, because we know it's already – this phase is accomplished and we've seen enough.

MR. PEDDIGREW: Okay.

And typically, how long would you spend if you were at one of these site visits? Was it a day, was it a week?

MR. ARGIROV: Typically, it's one week, our visit. So we try to cover everything in this one week.

MR. PEDDIGREW: Nik, would you stay – if you were at Muskrat Falls, would you stay –

MR. ARGIROV: Yes, we'd stay –

MR. PEDDIGREW: – at the site?

MR. ARGIROV: – over there, yes.

MR. PEDDIGREW: Okay.

And who would be there with you? Was it just yourself on behalf of MWH? Would you bring a team of people with you?

MR. ARGIROV: Oh no, always with a team. Yes.

MR. PEDDIGREW: Okay.

And how many people would attend with you normally?

MR. ARGIROV: Anywhere between three, four people with me, which is my team.

MR. PEDDIGREW: And how would you determine who you'd take with you?

MR. ARGIROV: Well, it is – most of the time, I take all of them. Sometimes, if one of them is not necessary to come, so we make a choice which one to come.

MR. PEDDIGREW: And so it was always a team that went with you on these site visits?

MR. ARGIROV: Correct.

MR. PEDDIGREW: Okay.

Mr. Argirov, did you maintain – so if you weren't working on site, your regular office was in Vancouver?

MR. ARGIROV: Correct.

MR. PEDDIGREW: Okay.

Did you have office, an office in St. John's?

MR. ARGIROV: No, I don't.

MR. PEDDIGREW: Okay.

And when you were in St. John's, where did you work from?

MR. ARGIROV: Well, if I'm in St. John's, most of the time I travel to the site.

MR. PEDDIGREW: Okay.

MR. ARGIROV: And if I need to come back, it is for meetings.

MR. PEDDIGREW: Right.

MR. ARGIROV: And I have to meet with the team of engineers of Nalcor or SNC-Lavalin, so –

MR. PEDDIGREW: You had no – you had no office space in St. John's.

MR. ARGIROV: No, I don't.

MR. PEDDIGREW: Okay.

The reliance agreements that were discussed, some of the questions from Mr. Learmonth – so there was one in June 2000 – June 4, 2013, and then it was revised in November of 2013.

MR. ARGIROV: Correct.

MR. PEDDIGREW: So in terms of your dealings with Nalcor before and after the reliance agreement, did it change? Did you have more or less dealings with Nalcor before those agreements?

MR. ARGIROV: No. No, nothing changed.

MR. PEDDIGREW: It was just that your obligation to report to Canada.

MR. ARGIROV: Well, they were confirmed by the first agreement with Nalcor.

MR. PEDDIGREW: Right. And how often –

MR. ARGIROV: They were stated and they never changed.

MR. PEDDIGREW: Right, okay. Okay.

Madam Clerk, if we could call up document P-02218, please.

THE COMMISSIONER: 02218.

MR. PEDDIGREW: Mr. Argirov, this is the Cassels Brock memo from November 20, 2013 that we were looking at yesterday.

THE COMMISSIONER: Tab 77, book 4.

MR. PEDDIGREW: Thank you, Commissioner.

MR. ARGIROV: Okay.

MR. PEDDIGREW: Okay?

And, Mr. Argirov, I'd like to take you to page 2, paragraph 4 of this document, so under the heading Costs.

And so, about five or six lines down there, the sentence that starts with: "Recognizing that this is a project which has a full Province of Newfoundland equity backing, that is the Province of Newfoundland must pay all costs to completion and commissioning of this project, including any overruns, and that the revenue agreements then" – covering – "all ongoing costs including resulting debt, this project is somewhat different in its cost analysis the Newfoundland equity funding commitment easing concerns regarding over runs which might be noted for" – this – "report."

So, essentially, if to paraphrase what that says, to me, is that while the government is going to pay any cost overruns anyway, so that eases some of the concerns that you might otherwise have, I guess, if it were a, maybe a privately funded project. And so in this case, when we talk about government paying, of course, that ultimately ends up being taxpayers or the ratepayers of the province, who I'm representing here today.

Was that ever a topic of discussion between yourself and Nalcor, yourself and the government that, ultimately, it's gonna be the ratepayers and the taxpayers? I'm just wondering if it ever came up.

MR. ARGIROV: No, this is a process that's been established way before my involvement, or the involvement of an independent engineer.

MR. PEDDIGREW: Right.

And –

MR. ARGIROV: So –

MR. PEDDIGREW: – again, I'm not asking, I guess, did you have any say or input into that decision, but what I'm wondering is it was – was it ever a topic in meetings you were in that, look, it's the ratepayers that are gonna end up paying for this?

MR. ARGIROV: It is what it says. So it says clearly what the intention is and that's –

MR. PEDDIGREW: Right.

MR. ARGIROV: – been obviously discussed between the two sides. And that’s what I’d say, I have no say in that.

MR. PEDDIGREW: Okay.

And I understand that you had no say in it, I’m not suggesting that. What I’m wondering is were you present when that –

MR. ARGIROV: No, I was not –

MR. PEDDIGREW: – topic –

MR. ARGIROV: – present –

MR. PEDDIGREW: – was being –

MR. ARGIROV: – at all –

MR. PEDDIGREW: – discussed?

MR. ARGIROV: – because that was beyond my involvement.

MR. PEDDIGREW: That was nothing you heard discussed, any meetings you –

MR. ARGIROV: No.

MR. PEDDIGREW: – were at.

MR. ARGIROV: No, no, no.

MR. PEDDIGREW: Okay.

MR. ARGIROV: That’s ...

MR. PEDDIGREW: It was – were some questions from Mr. Learmonth yesterday about the issue of management reserve and how there was no management reserve identified. And again, it was the same reasoning as what we just looked at in this Cassels Brock memo is that, well, government were going to be there to backstop the cost in any event, and that may have been the reason why there was no specific amount identified for management reserve.

You ever been involved in any other projects where that approach has been taken? You know, the government is guaranteeing payment of this project so there’s no need to set aside a management reserve. Is that anything you’ve

heard of before in other projects you’ve worked on?

MR. ARGIROV: No, I don’t have particular recollection of this. However, with any utility, which is Crown Corporation across Canada, obviously it is the utility or the government has to provide to management reserve. Depends how the project has been funded, of course. So –

MR. PEDDIGREW: Okay, but in this case, there was legislation passed that made the ratepayers responsible, no matter what the cost. So, I guess, are you aware of anything like that on any other project you’ve worked on?

MR. ARGIROV: No, I’m not.

MR. PEDDIGREW: And you’ve worked on quite a number of hydroelectric projects, I think you said.

MR. ARGIROV: Right. Yes.

MR. PEDDIGREW: Some of the questions yesterday were around certain concerns that were expressed by you to Nalcor about the – or how quickly, or certain information about escalating costs that was coming to you.

Was that ever a topic of concern that was expressed to you by the lenders? Did the lenders ever come to you and express concerns about this?

MR. ARGIROV: Not directly, but I know that they were very concerned about the cost increase.

MR. PEDDIGREW: You say not –

MR. ARGIROV: Any discussions with them, they were always questioning: What is the status? Where the budget is at the moment? Do you know if the cost – do you have any indications of that? And that’s why we resorted to the situation when we had to send this letter to Nalcor.

MR. PEDDIGREW: Right.

So, that letter that went in October of 2013 –

MR. ARGIROV: Correct.

MR. PEDDIGREW: – that was partially as a result of some concerns by the lenders?

MR. ARGIROV: Correct.

MR. PEDDIGREW: In response to one of the questions yesterday, I believe you said one of your roles as an independent engineer was to identify risks and point those out.

MR. ARGIROV: Yes.

MR. PEDDIGREW: Astaldi's lack of experience in Northern Canada, doing projects in Northern Canada, was that ever identified as a risk?

MR. ARGIROV: No, because actually we have observed Astaldi experience in very extreme climates.

MR. PEDDIGREW: In Northern Canada?

MR. ARGIROV: Not in Northern Canada but in different geographic locations, but still extreme.

MR. PEDDIGREW: All right.

So, explain to me –

MR. ARGIROV: It's not that different in a way.

MR. PEDDIGREW: Right.

But cold weather or –?

MR. ARGIROV: Well, if you're over 4,300 metres, obviously the winter is cold.

MR. PEDDIGREW: Okay.

But not Northern Canada that you're aware of.

MR. ARGIROV: No, no.

Not Northern Canada, no.

MR. PEDDIGREW: Okay.

With winter conditions, snow, ice –

MR. ARGIROV: Well, it's snowing over there as well –

MR. PEDDIGREW: Okay.

MR. ARGIROV: – at this elevation in the –

MR. PEDDIGREW: But we don't know if –

MR. ARGIROV: – Andes, it's snow –

MR. PEDDIGREW: – more or less in Labrador. We don't know.

MR. ARGIROV: Not in Labrador, but definitely – they were not present here before.

MR. PEDDIGREW: The Integrated Cover system, there were some questions about that as well. I just – when did you realize that that was – when did you come to the realization or when were you advised that that was not going to work?

MR. ARGIROV: I believe that that was towards the end of 2014.

MR. PEDDIGREW: I think that was when the decision was made, I guess, to – or that's when the structure came down, I believe it was late 2014.

MR. ARGIROV: It started to – yes. I think they realized that they cannot utilize the structure over the winter of '14, '15.

MR. PEDDIGREW: And how far in advance of that starting did you find out?

MR. ARGIROV: It was already over Unit 1 and just encroaching over Unit 2.

MR. PEDDIGREW: Right.

But I guess what I'm wondering is how far – so it started to be taken down, I believe, in December 2014, is my recollection, and –

MR. ARGIROV: I don't remember (inaudible) –

MR. PEDDIGREW: – is that when you found out it was coming down? Or did you have advance notice?

MR. ARGIROV: Oh, I don't have recollection of that, when, exactly.

MR. PEDDIGREW: You don't know?

MR. ARGIROV: No.

MR. PEDDIGREW: Okay.

MR. ARGIROV: I believe we were informed earlier.

MR. PEDDIGREW: Madam Clerk, document 01930, please – 1-9-3-0 – which is the November 30, 2013, independent engineer report. So the one you were looking at yesterday, but I don't know the tab reference in the binder.

THE COMMISSIONER: Okay. 01930 is tab 176 in book 10.

MR. ARGIROV: Okay.

MR. PEDDIGREW: Okay.

And, Mr. Argirov, on page 148 of this document.

MR. ARGIROV: One-forty?

MR. PEDDIGREW: One-forty-eight.

MR. ARGIROV: Forty-eight.

MR. PEDDIGREW: And, Madam Clerk, if we could scroll down a little bit to – yes – 7.1.

So, Mr. Argirov, I'm not sure if you're aware or not, but the issue of water management – and I'm not gonna ask in-depth questions about this but – has been an issue at this Inquiry. And I realize you're not the author of this report, but you did say yesterday that you stand by the report as what was prepared by your project team.

MR. ARGIROV: Correct.

MR. PEDDIGREW: And I guess my question to you is – so this paragraph dealing with the identification of water management in the report, do you stand by this as the, I guess, the extent of

the independent engineer's knowledge of this issue at the time?

MR. ARGIROV: Correct.

MR. PEDDIGREW: Okay.

Madam Clerk, if we could go to page 204 of the same document, please? And section 9.2.4.

So under the heading Renewals and Replacements, Mr. Argirov, it says: "Nalcor advised the IE that the financial planning for the projects did not specifically include costs for major equipment renewals and replacements in the capital or annual cost estimates. Their opinion is that with proper design and installation and with regular and prudent maintenance following manufacturers' recommended scheduled maintenance there should be no need to replace the equipment since its useful life will exceed the bond repayment period."

And then it says: "The IE is of the opinion, based on experience that funds should be provided for major replacements in the 25-30 year period with minor replacement after 10-15 years of service."

So am I correct here that Nalcor's view was that it did not need to allow any cost for repairs and maintenance of equipment and the independent engineer's opinion was that, look, 25 to 30 years in you're going to need to do some major replacements of your equipment and 10 to 15 years in you're probably going to need to do some minor replacements.

MR. ARGIROV: Well, that's what is said here. So it is opinion that is based on experience and practice.

MR. PEDDIGREW: On other hydro projects?

MR. ARGIROV: Of course.

MR. PEDDIGREW: Right.

MR. ARGIROV: And the operation of different projects. So –

MR. PEDDIGREW: And so as far as you're aware, Nalcor did not include the cost of repairs and replacements when it did its cumulative present worth analysis?

MR. ARGIROV: That's what the – it's present here. However, Nalcor developed their O&M cost budget further –

MR. PEDDIGREW: Right.

MR. ARGIROV: – over the following three years. So at that time they didn't have this well developed.

MR. PEDDIGREW: Right. So as of November 29 – or November 30 – sorry December 30, 2013 –

MR. ARGIROV: Correct.

MR. PEDDIGREW: – these were not included in their costs.

MR. ARGIROV: I guess it wasn't sufficient in our opinion –

MR. PEDDIGREW: Right.

MR. ARGIROV: – whatever was included.

MR. PEDDIGREW: During the interview you had with Mr. Learmonth and Ms. O'Brien, one of the topics of questioning was about – or one of the things you talked about was, I guess, more scrutiny from an occupational health and safety, environmental point of view and how that has added costs to some projects, in your opinion.

MR. ARGIROV: Yeah. That's right. Yeah

MR. PEDDIGREW: Okay. Around when did you start noticing that trend? Five years ago, 15 years ago?

MR. ARGIROV: Oh, there were not too many major projects, you have –

MR. PEDDIGREW: No.

MR. ARGIROV: – to realize and – for example, 2004, 2007, we didn't have this level of attention to health and safety standards. And

I, actually, noticed this right here with this project.

MR. PEDDIGREW: Okay, so this –

MR. ARGIROV: And I was really – first I was surprised, then I realized that it is very positive, actually, measure. And we were even further surprised how closely this has been followed through the whole construction period –

MR. PEDDIGREW: Right.

MR. ARGIROV: – to now.

MR. PEDDIGREW: Okay. But so, from your point of view, this is the first project you were on where you noticed –?

MR. ARGIROV: Correct.

MR. PEDDIGREW: Okay and what was the last project you worked on before this one? Major project?

MR. ARGIROV: 2007 was finished, yeah.

MR. PEDDIGREW: Okay.

MR. ARGIROV: 2006. Yeah.

MR. PEDDIGREW: So when phase two of your engagement as the independent engineer began, so post-financial close – and you moved into the position of project manager, I think it was, in May 2014?

MR. ARGIROV: Correct, yeah.

MR. PEDDIGREW: Okay.

Were there any other projects that you were working on at that time or was it just the Muskrat Falls Project?

MR. ARGIROV: Oh, mainly Muskrat Falls. My attention was –

MR. PEDDIGREW: Anything else though besides Muskrat Falls?

MR. ARGIROV: Well, I had, in the office, several other engagements, but I had project managers and teams –

MR. PEDDIGREW: Okay.

MR. ARGIROV: – who were working on them.

MR. PEDDIGREW: Okay. So what percentage of your time would you say was dedicated to Muskrat Falls? In terms of your working time.

MR. ARGIROV: At the time when I was with MWH, probably more than 50 per cent was devoted to this project.

MR. PEDDIGREW: All right. Seventy-five per cent? I'm just trying to get a sense of –

MR. ARGIROV: I cannot give you this figure, exact percentage.

MR. PEDDIGREW: Right.

MR. ARGIROV: I don't have recollection on it.

MR. PEDDIGREW: But was it your primary project?

MR. ARGIROV: It was. It was substantial focus I had really at this project.

MR. PEDDIGREW: And – but you did have some other projects that you were managing, but the Muskrat Falls one was your main responsibility?

MR. ARGIROV: I was not managing the other projects. As I said, I had project managers.

MR. PEDDIGREW: Okay. So –

MR. ARGIROV: I was in the same office, but that's –

MR. PEDDIGREW: For the other projects were you –

MR. ARGIROV: – that's normal.

MR. PEDDIGREW: – were you the principal?

MR. ARGIROV: No. Oh, I was principal in charge, yes.

MR. PEDDIGREW: Yes, okay.

So the same role you had in phase one of Muskrat Falls.

MR. ARGIROV: Of course, yeah.

MR. PEDDIGREW: Okay.

And it seems just from looking at a number of the documents and emails between – documents leading up to financial close, a number of the emails being exchanged between your team and Nalcor in November of 2013 – seem there was certainly a rush, and I know that's a subjective term, but there seemed to be quite a rush to get things done in time for financial close. Was there ever any discussion about why that date was so important, why there wasn't a discussion about maybe pushing this off until we work out some of these details? Was that ever a topic?

MR. ARGIROV: No, no. This was – once again, I said in this process that was set up before our engagement.

MR. PEDDIGREW: Right. And I'm not suggesting it was your decision or your call –

MR. ARGIROV: No, I don't know.

MR. PEDDIGREW: – to make a decision like that, but what I'm wondering –

MR. ARGIROV: You know, when two governments or three governments, whatever they have, decided the process, you cannot change those things and for – also, there's lenders involved, so ...

MR. PEDDIGREW: Yeah, and I know you can't change it, but what I'm wondering is did you ever hear that discussed? Did you ever hear the Government of Canada say –

MR. ARGIROV: No.

MR. PEDDIGREW: – we need to put the brakes on here –

MR. ARGIROV: No, I –

MR. PEDDIGREW: – we need to –?

MR. ARGIROV: – haven't heard anything like this.

MR. PEDDIGREW: Okay.

It was, as far as you knew –

MR. ARGIROV: It wasn't my decision.

MR. PEDDIGREW: I know that.

MR. ARGIROV: Independent engineer was not involved in –

MR. PEDDIGREW: Right.

MR. ARGIROV: – all the decisions that the federal government –

MR. PEDDIGREW: Okay.

MR. ARGIROV: – will take.

MR. PEDDIGREW: I'm just asking what you may have heard or may not have.

MR. ARGIROV: No, I haven't.

MR. PEDDIGREW: You didn't hear anything about that?

MR. ARGIROV: No.

MR. PEDDIGREW: Okay.

Okay, those are all my questions. Thanks very much.

MR. ARGIROV: Yeah, thank you.

THE COMMISSIONER: Thank you.

All right, the Innu Nation is not present.

Emera Inc. – not present.

Astaldi Canada Inc.?

MR. BURGESS: Good morning, Mr. Argirov. My name is Paul Burgess and I represent Astaldi Canada Inc.

I just have a couple of questions.

MR. ARGIROV: Good morning.

MR. BURGESS: One is a follow-up – good morning, Sir. And one is a follow-up to what Mr. Peddigrew just raised with respect to the labour productivity and the change in standards. And I just want to have you expand a little bit on this because I did see your transcript. You recall you met with Commission counsel on February 13 of this year, correct?

MR. ARGIROV: Correct, yeah.

MR. BURGESS: And as I understand it, you had talked about the labour productivity was reduced as a result of standards, mostly health and safety and environmental. Is that correct?

MR. ARGIROV: Yes, yeah.

MR. BURGESS: And as I understand it, in your interview at least, you indicated that it was around the time of this project, so that could even impact bidders on the project and what they thought they could achieve versus what they ultimately did achieve. Is that correct?

MR. ARGIROV: To some extent. I cannot really specify when this effect happened across the industry because I think some of the bidders might have had counted this for.

MR. BURGESS: Right.

But in your interview, I believe you had a percentage that you even attributed to the increased standards. But before we get to that, could you explain for the Commissioner what and how the impact would be and what standards – how health and safety, for example, and environmental issues or standards could impact the labour productivity?

MR. ARGIROV: Well, mainly the health and safety standards because everybody has to follow strict rules of wearing the PPE and sometimes they have to follow particular paths of – which are secure access – and not to cross the yellow lines or the red lines. And all of that will probably create some additional – will put some additional effort – we will require some additional effort to achieve the same effect.

So it's a combination of a lot of things because it's not simple issue. It's not only the labour productivity, but also there is an indirect cost

associated with this. Because creating the standards and monitoring them and executing them also adds to certain costs.

MR. BURGESS: Right. So I take it then your evidence is that while safety is certainly important, it comes at a cost?

MR. ARGIROV: Of course.

MR. BURGESS: Right. And then could you explain to me then how environmental standards could impact labour productivity?

MR. ARGIROV: Oh, it wasn't about labour productivity, environmental requirements; it was more related to the problems of, for example, achieving geotechnical investigation for a transmission line for example.

MR. BURGESS: Okay.

And during your evidence with Mr. Learmonth yesterday, I understood you to say that while Astaldi's performance in 2014 was a slow start – and you expanded upon that in some detail – that, ultimately, their performance – they were quite good in their achievement after the slow start. Did I understand that correctly?

MR. ARGIROV: Correct, yes. Yeah.

MR. BURGESS: Right.

MR. ARGIROV: They managed to bring up the level of performance quite substantially.

MR. BURGESS: And when did you notice that that performance increased?

MR. ARGIROV: I think it was – for me to notice it was probably mid-'15.

MR. BURGESS: Okay.

All right, that's all my questions.

Thank you, Sir.

MR. ARGIROV: Okay.

THE COMMISSIONER: Thank you.

Former Nalcor Board Members?

MS. G. BEST: No questions.

THE COMMISSIONER: Newfoundland and Labrador Construction – Building and Construction Trades Council/Resource Development Trades Council of Newfoundland and Labrador?

MS. QUINLAN: No questions, Commissioner.

THE COMMISSIONER: Thank you.

Dwight Ball, Siobhan Coady? Not here.

ANDRITZ Hydro Canada? Not here.

Grid Solutions Canada ULC?

Barnard-Pennecon?

Okay, redirect, Mr. Learmonth.

MR. LEARMONTH: Just one point I want to raise about the – you mentioned about environmental impacts when you were speaking to Mr. – answering Mr. ...

What affect would they have, impacts, environmental considerations, on the geotechnical investigations for the transmission line?

MR. ARGIROV: Well, the – sorry, geotechnical investigation was not completed, actually, sufficiently because of regulation restrictions.

MR. LEARMONTH: Yeah.

MR. ARGIROV: So they didn't have enough information because of this environmental requirements.

MR. LEARMONTH: Yeah.

But did you confirm that there were environmental requirements or are you just assuming that because Nalcor said that, that it's correct?

MR. ARGIROV: Oh, that's what I am assuming.

MR. LEARMONTH: Yeah.

MR. ARGIROV: Yes.

MR. LEARMONTH: So is that unusual for a transmission line of this length across very rough uncharted territories to base a cost estimate on a desktop study, which is what we –

MR. ARGIROV: It is not –

MR. LEARMONTH: – understand happened.

MR. ARGIROV: – usual, but it is not unusual.

MR. LEARMONTH: It's not unusual?

MR. ARGIROV: Well, no, because a lot of times, whether you have restrictions due to regulations or the terrain is really difficult, and the amount of geotechnical investigation that, for example, an engineer will love to see is you get the maximum, you go at every tower and –

MR. LEARMONTH: Yes.

MR. ARGIROV: – you bore holes. But that's practically not really what is happening, and –

MR. LEARMONTH: That would be the best practice, but it's not practical, is that right?

MR. ARGIROV: Exactly, yeah.

MR. LEARMONTH: Yeah.

MR. ARGIROV: So it would still – well, one team will like to see certain information – for example, dead-end structures or major change of direction, or even change of direction towers – to have some information about the substrata. And generally this aspect is resolved to some extent with the family of foundations that –

MR. LEARMONTH: Right.

MR. ARGIROV: – the team arise with and they're design to accommodate numerous foundations –

MR. LEARMONTH: Yes.

MR. ARGIROV: – foundation conditions.

MR. LEARMONTH: Yeah.

But when doing a cost estimate in these circumstances where there has been no or little or no geotechnical analysis done over this 1,100-kilometre long, isn't it very challenging to come up with a reasonable cost estimate, because you don't know what you're going to find?

MR. ARGIROV: It is.

MR. LEARMONTH: It is.

MR. ARGIROV: Yes.

MR. LEARMONTH: So it's – the more testing you do –

MR. ARGIROV: You reduce potentially –

MR. LEARMONTH: – the more precise your estimate can be.

MR. ARGIROV: Correct.

MR. LEARMONTH: And the less testing you do, the bigger the possibility that there's going to be cost overruns.

MR. ARGIROV: Yes, a bigger deviation you have.

MR. LEARMONTH: Because you don't know what you're dealing with.

MR. ARGIROV: Correct. Yeah.

That's why you try to create, as I said, package or a family of foundations that potentially –

MR. LEARMONTH: Yeah.

MR. ARGIROV: – will cover most of the conditions that you will experience.

MR. LEARMONTH: Right.

MR. ARGIROV: And that gives you certain level of comfort.

MR. LEARMONTH: Oh, but while it does, let's say there's a family of five different possible foundations –

MR. ARGIROV: Correct, yeah.

MR. LEARMONTH: – but – and there’s different costs associated with each.

MR. ARGIROV: Correct, yes, yeah, yeah.

MR. LEARMONTH: There’s one that is least expensive and the other one is the most expensive.

MR. ARGIROV: Correct.

MR. LEARMONTH: But if you don’t do geotechnical work you can only guess –

MR. ARGIROV: You don’t know, no.

MR. LEARMONTH: – you can only guess –

MR. ARGIROV: (Inaudible.)

MR. LEARMONTH: – how many of the cheaper ones are going to be used –

MR. ARGIROV: Correct.

MR. LEARMONTH: – and how many of the most expensive ones are going to be used.

MR. ARGIROV: Correct.

MR. LEARMONTH: So that adds a lot of uncertainty to cost estimates, is that correct?

MR. ARGIROV: Yes, that’s correct.

MR. LEARMONTH: Yeah, for that reason.

MR. ARGIROV: Correct.

MR. LEARMONTH: Okay. Thank you.

MR. ARGIROV: You’re welcome.

THE COMMISSIONER: All right, thank you, Mr. Argirov.

You can step down.

MR. ARGIROV: Thank you.

THE COMMISSIONER: Ms. O’Brien.

MS. O’BRIEN: Thank you.

Our next witness is ready, Tim Harrington.

We’d like to take a few minutes, Commissioner, just so we can arrange the set-up.

THE COMMISSIONER: Sure.

Okay, so we’ll adjourn just for a few minutes and get ready for Mr. Harrington.

CLERK: All rise.

Recess

CLERK: All rise.

Please be seated.

THE COMMISSIONER: Ms. O’Brien.

MS. O’BRIEN: Thank you, Commissioner.

Our next witness is Tim Harrington – Timothy Harrington. He is a project manager for Cahill-Ganotec, which is the entity that was awarded the CH0031 balance of plant contract.

Before we begin with Mr. Harrington I’m going to ask to enter the following exhibits. Exhibits – excuse me – P-02308 to P-2317, P-02321 to P-02328, C82, P-02342, P-02344 to P-02349, P-02363 to P-02365 and P-02399.

THE COMMISSIONER: All right. Those exhibits will be marked as entered.

MS. O’BRIEN: Thank you. And Mr. Harrington would like to be affirmed.

THE COMMISSIONER: All right.

Sir, if you could just stand then please.

CLERK: Do you solemnly affirm that the evidence you shall give to this Inquiry shall be the truth, the whole truth and nothing but the truth?

MR. T. HARRINGTON: Yes, I do.

CLERK: Please state your name.

MR. T. HARRINGTON: Tim Harrington.

CLERK: Thank you.

MS. O'BRIEN: Thank you, Mr. Harrington.

I'm going to begin by asking you to give a brief overview of your education and work history, and to assist you with that we do have your CV. It's been entered as an exhibit. That's Exhibit P-02325, tab 15 of the book in front of you, Mr. Harrington. And that has gone in as an exhibit so we don't need to go through every word in detail. But if you could give us an overview and with a focus on your most relevant – closest relevant experience prior to your work on the Muskrat Falls Project.

MR. T. HARRINGTON: Sure thing.

I'm a professional engineer background, graduated from Memorial University back in 2003. Discipline was electrical. Right immediately after graduation, I spent about four years working with a local instrumentation company until I – about 2007 I was hired by the Cahill Group of Companies, and ever since then I've spent most of my career bouncing from different major projects across Canada, most recently working as a project manager on several projects. Recently on the Hebron living-quarters project, I finished as project manager for that one – operations project manager for NEAL, which was a joint venture between Cahill and Apply Leirvik, which is a Norwegian-based company.

After that I spent a few years working on the Maritime Link, managing two of the HVDC substations there in Bottom Brook and Woodbine in Cape Breton. And previous to that, I also worked as a deputy project manager on the Wuskwatim Generating Station, which was a powerhouse out in Northern Manitoba, for Manitoba Hydro.

And after my time with the Maritime Link is when we were awarded the balance of plant project, which was a joint venture between Cahill and Ganotec, which is a Quebec-based company. So I've been working on that since, I think, the summer of 2017.

MS. O'BRIEN: Okay. Now, for the – when you did the work on Wuskwatim – for Manitoba Hydro that would be, is that correct?

MR. T. HARRINGTON: Yes.

MS. O'BRIEN: Okay.

And you were deputy project management there. Was that also a balance of plant contract that you were doing?

MR. T. HARRINGTON: Very similar scope, yeah. It was balance of plant for that job as well.

MS. O'BRIEN: Okay.

CH0031 is formally titled the Supply and Install Mechanical and Electrical Auxiliaries –

MR. T. HARRINGTON: Mm-hmm.

MS. O'BRIEN: – for Muskrat Falls, but it is very commonly referred to as the balance of plant contract.

MR. T. HARRINGTON: Yes.

MS. O'BRIEN: And I was – I'd like to ask you to give us an overview of what the scope of work on that contract entails generally. When they say, you know, balance of plant, what does that really mean?

MR. T. HARRINGTON: Sure.

I guess probably the simplest way to look at it is that we operate as the powerhouse outfitters. So, obviously, the civil structure group would build the shell of the powerhouse and, you know, obviously responsible for the concrete within, building up the pit areas which the turbines and generators will be built in. The turbine generator scope is obviously – was awarded to ANDRITZ Hydro.

We pretty much operate outside the pit, so we were responsible for any of the electrical, mechanical, architectural systems that make it a fully functional powerhouse. So, all the electrical distribution, fire alarm systems, HVAC, water systems, oil – all of it – that kind of falls in our scope of work.

MS. O'BRIEN: And would you do the final finishing, say, of the offices that are there in the plant and all the architectural details for those as well?

MR. T. HARRINGTON: Yes, we would.

MS. O'BRIEN: Okay.

Okay, before we get to – we'll get a little bit back to that contract and some of the terms in a few minutes but, before that, I'd like – we know that it was awarded to Cahill-Ganotec –

MR. T. HARRINGTON: Mm-hmm.

MS. O'BRIEN: – which is an entity that is a coming together of two separate commercial entities. So can you tell us a little bit about what Cahill-Ganotec is?

MR. T. HARRINGTON: Sure.

It's a 50/50 partnership that was established for this job specifically. Obviously, 50 per cent is made up of – from Cahill, the Cahill side, Cahill Group, which is a local-based construction company that we do operate outside of Newfoundland and Labrador, but it was – is locally owned. And Ganotec which is – our partner is based out of Quebec. They're actually a division of Kiewit, which is obviously a major player in the construction industry globally.

MS. O'BRIEN: Okay.

And I understand in that partnership it's Cahill which is the managing partner?

MR. T. HARRINGTON: Yes. Cahill operates the managing partner and Ganotec is our financial partner. That's how we term it, yes.

MS. O'BRIEN: Okay.

So as the project manager on this contract, who do you report to?

MR. T. HARRINGTON: I have several people I report to. I have two direct sponsors, John Henley who's one of our – a senior executive for the Cahill Group. He acts as our primary sponsor for on the Cahill side. There's also Michael Buckle. He's with Kiewit Canada in the Ganotec division. He operates as our direct Ganotec sponsor.

And over and above that, we have a steering committee, which is made up of, obviously,

Mike, John and also Fred Cahill who's the owner-operator of the Cahill Group, Patrick Lamarre who is an executive with Kiewit Canada, Sebastian Larivée who is the president of Ganotec. So they're the primary committee – steering committee members.

MS. O'BRIEN: Okay, so you report up to that steering committee which is essentially made up of senior people from both companies?

MR. T. HARRINGTON: Absolutely, yeah.

MS. O'BRIEN: Okay.

And as the project manager where are you based day to day? Are you here in St. John's or are you up on site at Muskrat Falls?

MR. T. HARRINGTON: No, I'm full time at Muskrat.

MS. O'BRIEN: Okay.

And just to give approximately – I don't expect a very precise number, but how many people do you have working for you on this project?

MR. T. HARRINGTON: Staff-wise – management staff we're about 45 on my team and our workforce is probably about 220 trade employees right now.

MS. O'BRIEN: Okay. And so those would primarily be on site at Muskrat Falls?

MR. T. HARRINGTON: We do have a small staff contingent that works out of St. John's, but that's primarily made up of our finance group and some of our procurement team. But in terms of – most of our management core is operating on site full time, yes.

MS. O'BRIEN: Okay.

Now, I understand that you didn't have any involvement in preparing Cahill-Ganotec's bid for this package. Is that right?

MR. T. HARRINGTON: No, it was – I was working on the Maritime Link and Hebron at the time. It was a fairly long bid period for this particular contract. And once we were awarded the project, I was asked to act as project

manager. So literally no involvement in the bid, no.

MS. O'BRIEN: Okay.

But now, I guess, as – since having been appointed project manager, you would be familiar with the contract that you're working under?

MR. T. HARRINGTON: Yes.

MS. O'BRIEN: So I'm going to take you to that contract and we're going to go over some of the terms.

MR. T. HARRINGTON: Yeah.

MS. O'BRIEN: P-02324, tab 14 of the book in front of you is most of the contract. There's some exhibits – one exhibit that's been entered separately. And I'll take us there to the key points in a few minutes.

When we look at this contract if – Madam Clerk, if you could just go to – my apologies, it's a little ways in – if you could just go to page 20, please? There's some emails and such that are on the front of this exhibit. And just scroll down a little bit there.

We see the – that's okay. There we go. We see this is dated as of June 16, 2017. But I note in the documents that there were limited notices to proceed signed prior to the contract being finalized. Is that correct?

MR. T. HARRINGTON: That's correct, yes.

MS. O'BRIEN: Okay. And just for the record, I think the first limited notice to proceed was actually dated June 16, 2017, and, Commissioner, that's been entered as Exhibit P-02321. And that was later extended by a second limited notice to proceed that was dated, I think, June 30, and that's dated P-02322. And then a third one dated July 7, 2017, as P-02323. So then ultimately then the contract gets signed, and I understand it got backdated to the date of the first letter of limited notice to proceed.

MR. T. HARRINGTON: That's correct.

MS. O'BRIEN: Okay.

And I understand that this is fairly common in the construction world that, prior to a contract being finalized, that the owner may issue a limited notice to proceed to a contract to enable them to get going with the idea that ultimately the final contract will be signed up.

MR. T. HARRINGTON: Yes. Yeah.

MS. O'BRIEN: Okay.

MR. T. HARRINGTON: We call it a letter of intent or something like that, yeah.

MS. O'BRIEN: Okay.

Now, you – sticking with the main contract now, you've already given us a general description of what the scope of work covers, so now I'd like you to explain some of the commercial terms –

MR. T. HARRINGTON: Yeah.

MS. O'BRIEN: – so how you got paid for the work –

MR. T. HARRINGTON: Yes.

MS. O'BRIEN: – or getting paid for the work. So I'm going to start – I know there's a fixed-fee portion of the contract. Can you please describe for us what is – how does that fixed-fee portion work? What does that cover?

MR. T. HARRINGTON: Several components, but primarily it's for our management staff and our site infrastructure pieces, so our site facilities, washcars, trailers and, again, our core management staff. There is a fixed-fee portion that covers some of our mobilization and demobilization expenses as well. And also some warranty and these kinds of things, yeah, that's primarily made up of fixed fee.

MS. O'BRIEN: Okay.

So fixed fee is another way of saying lump-sum amount?

MR. T. HARRINGTON: Yes, yes.

MS. O'BRIEN: Okay.

And just to give us an order of magnitude, approximately how much is the fixed-fee portion, in terms of dollars, for this contract?

MR. T. HARRINGTON: The staffing piece is about \$34 million. Site installation is kind of how we would term – how it's defined as our site infrastructure; that's another \$4 million. The warranty piece is 2 or 3 I believe. And there's some mobilization-demobilization expenses which were made up of the fixed fee as well, which is another 1, 1.5, around there.

MS. O'BRIEN: Okay.

And then I understand for the contract there's also a unit-price portion.

MR. T. HARRINGTON: Yes.

MS. O'BRIEN: So we've already had some evidence on how unit price works, but if you could just explain, for your contract, perhaps give us an example of how the unit-price piece works.

MR. T. HARRINGTON: Sure. The way that the contract is structured, every little piece or component that we're installing is broken down within the contract in terms of quantity. So a good example would be – I think I used in my interview two weeks ago – was a light fixture. So if there's 20 different light fixture types that we're installing, then they're all defined in the contract and number of light fixtures that is associated with that. So we have upwards of 1,800 different components that we're putting into contracts, between panels, fixtures, lengths of pipe. All that kind of stuff is defined.

Under each line item, there's a fixed-labour component. So back to my example on the light fixture: that would have a number of hours associated that that's agreed with our client to say, okay, well, believe that this type of fixture is going to take two or three hours or whatever that established amount is. Also there is a fixed amount for the material portion which is agreed this is going to cover the cost of fixture installing. Plus there's also a component to cover our equipment, so the installation equipment. Whether it be lifts or cranes or whatever you're using, that's built into that equipment component.

So on a unit-price-based contract, it's all about, you know, managing the quantities and verifying what we're installing. So as we – if we add light fixtures, for example, if we add five of one type, we – the contract gets adjusted to incorporate those. So that adjusts our labour budget component. It adjusts our material budget and our equipment budget.

MS. O'BRIEN: Okay. So at the beginning, the contract would be based just – like an estimate of light fixture type A – we estimate you're going to be putting in a hundred of those.

MR. T. HARRINGTON: Yes.

MS. O'BRIEN: If at the end of all the work you put in 95 of those, you only get paid for 95 –

MR. T. HARRINGTON: Yes.

MS. O'BRIEN: – based on the per-unit price. If you put in 105, you get paid for the 105 on the per-unit price.

MR. T. HARRINGTON: Yes. That's, fundamentally, how that works. Yes.

MS. O'BRIEN: Okay. And I know you just spoke a little bit about there was an expected value for labour worked into each unit price. And I think that's going to be important for the final commercial section, say, of the contract, and that's the reimbursable labour component –

MR. T. HARRINGTON: Yes.

MS. O'BRIEN: – because I understand there was a reimbursable labour component. Can you please explain for the Commissioner how that works?

MR. T. HARRINGTON: Right. So the way the contract is structured is that any personnel that falls under unionized collective agreement-type labour – or PLA labour is what we kind of term it within the contract – is a reimbursable component with certain exceptions. There's a clause in our exhibit two, compensation section, that basically outlines certain work activities that are not allowed to be conducted on site, and those are not reimbursable, but generally speaking any of the main work – bulk work – we do it is reimbursable based on cost with a mark-

up of – an overhead mark-up component on top of it, right?

MS. O'BRIEN: Okay. I'm going to bring us to a few pages in the contract that will cover these topics, I think. P-02324, which is up on the screen. Please, Madam Clerk, can you go to page 142.

So you just spoke to there for – all of your labour is reimbursable with some exceptions. And am I understanding correctly that this section here that's – this definition of disallowed items – that is on this page – continuing into the next page, those would be the labour that is not reimbursable, the disallowed items?

MR. T. HARRINGTON: So if our client identifies any cases that we're operating under one of these specific criteria here – if we're building – fabricating pipe of a certain size, like a large bore pipe, for example, which is more efficient to be done off site, obviously, and that's agreed and established prior to signing the contract, then he can obviously opt not to pay us.

MS. O'BRIEN: Okay. And PLA labour – I know it's actually defined in the contract itself, but is that another way of saying the union or craft labour?

MR. T. HARRINGTON: Yes, any personnel that's being paid under the collective agreement of the project. Yeah.

MS. O'BRIEN: Okay.

And so I understand that under the contract here there's an important concept called the targeted cost of labour. And if we go to page 146 please, Madam Clerk. There it is. And there's actually a number here, \$63,920,703.06.

MR. T. HARRINGTON: Yes.

MS. O'BRIEN: So a very precise number for the targeted cost of labour. And when we read further into the contract we see that that can be – that number can be adjusted.

Can you explain for the Commissioner, what is the significance – I'm gonna round it to \$64 million –

MR. T. HARRINGTON: Mm-hmm.

MS. O'BRIEN: – so what is the significance of that \$64 million and how does that get adjusted over time?

MR. T. HARRINGTON: Right.

So this kind of ties back to the unit price piece that we discussed earlier. So, as I mentioned, the whole contract is established based on quantities and individual buckets about – again, made up of lights, fixtures, different commodities – construction commodities that we're installing. And all those have a fixed number and obviously each one of those line items has – that we talked about earlier, there's a fixed, agreed labour unit with it. So once you multiply all those together, it establishes our target cost of labour based on our original budget of – or what we established with the project documents that we had.

So as things change – obviously, if there's a change order to adjust quantities or add a new piece of reimbursable scope that would ultimately cause an adjustment on our target cost of labour. Because ultimately that establishes our – not necessarily a cap to spend, but that's our limited – limit that won't impact our overhead markup. So if we exceed that amount, we start losing money in terms of our opportunity for our fee piece or our overhead markup.

MS. O'BRIEN: Okay. And I think that is covered here on – still on page 146 we see that.

MR. T. HARRINGTON: Yes, yeah.

MS. O'BRIEN: So here we see an important table, here at the bottom of this page extending onto the other.

So if your reimbursable cost of labour comes at zero dollars – I guess that's not very likely – but anywhere from there up to whatever the adjusted – it says here CTL, I think this is a typo in the contract.

MR. T. HARRINGTON: Yeah, it's ATCL.

MS. O'BRIEN: ATCL. So that should be up to the adjusted targeted cost of labour. Cahill-

Ganotec gets 13 per cent overhead and profit on that labour.

MR. T. HARRINGTON: Yes, and that's defined in our exhibit compensation section, as well.

MS. O'BRIEN: Okay. And so then we see, though, as – if the actual reimbursable labour climbs higher than that target, then your, Cahill-Ganotec's, overhead and profit multiplier starts going down.

MR. T. HARRINGTON: Exactly.

MS. O'BRIEN: Okay. So we see this here. So at a certain point if you're in excess of 1.17 times what the target was up until 1.34 times, you're only getting 3 per cent overhead and profit.

MR. T. HARRINGTON: Yes, it operates as a – basically it's a performance-based sliding scale, so –

MS. O'BRIEN: Okay.

MR. T. HARRINGTON: – if we started hitting labour overruns and we don't have a justification on why those overruns have occurred that have been approved through a change order then we start taking a hit on our overhead and profit component.

MS. O'BRIEN: Okay. And the hit goes down so that ultimately if it gets up, you know, greater than 1.51 times you start getting a negative multiplier –

MR. T. HARRINGTON: Yes.

MS. O'BRIEN: – on your overhead and profit. So that would mean that if your reimbursable labour gets up that high you start eating into the profit that you've already earned.

MR. T. HARRINGTON: Yes, you start losing money. Yeah.

MS. O'BRIEN: Okay. You start losing money on the contract.

MR. T. HARRINGTON: Yes, yeah.

MS. O'BRIEN: Okay.

Okay, so just so that I understand, the targeted cost of labour was set looking at the labour that was anticipated based on the actual unit prices. If you get more of a certain unit the labour would go up for that many extra units, the targeted cost. As well, if you got a change order that was more work on the contract and it had a labour amount associated with it, that labour amount would get added to the targeted cost of labour. Is that correct?

MR. T. HARRINGTON: Yeah. There is a situation that if a change is less than 100 hours then we don't – it doesn't adjust our ATCL.

MS. O'BRIEN: Okay.

MR. T. HARRINGTON: So I think there's a definition in the contract called the less than threshold change.

MS. O'BRIEN: Okay.

MR. T. HARRINGTON: So if we get a small reimbursable item that they want us to do a quick job for them, and if it's less than 100 hours, then we get, obviously, paid for the labour to do it, but we do not get an adjustment on our ATCL.

MS. O'BRIEN: Understood, but if it's greater than that it does adjust the ATCL.

MR. T. HARRINGTON: Yes.

MS. O'BRIEN: Okay. All right.

And it's – we'll see the number a few times here, but I understand the contract award amount was \$192 million – actually, 843,000 more dollars. But \$192 million, approximately, was the contract award amount.

MR. T. HARRINGTON: Mm-hmm.

MS. O'BRIEN: Is that correct?

MR. T. HARRINGTON: That's correct.

MS. O'BRIEN: Okay. And that would be based on that \$64 million target cost of labour.

MR. T. HARRINGTON: That was established within that 192, yes.

MS. O'BRIEN: Okay.

There was an Amending Agreement to this contract and it has been entered at P-02326. It's at tab 16 of your book, Mr. Harrington, but I understand that this really dealt with the issue on the contract security.

MR. T. HARRINGTON: Yeah, performance security, yes.

MS. O'BRIEN: Performance security, okay. And so it's been entered in evidence, I don't have any particular questions on it.

Now, under the terms of the contract you are required to give monthly reports to Nalcor, is that correct?

MR. T. HARRINGTON: That's correct.

MS. O'BRIEN: Okay.

I'm gonna take a look at some of those monthly reports and get to you just give a description, generally, of what they entail.

P-02344, please, Madam Clerk. Tab 21 of your binder.

So I believe this is a monthly progress report for July of 2017, is that right?

MR. T. HARRINGTON: Yeah, that's our first monthly report for the project.

MS. O'BRIEN: Okay.

I'm going to get you to just describe for the Commissioner, generally, what's in here at a higher level, and it may be of assistance to you to you reference the – there is a table of contents here.

MR. T. HARRINGTON: Yeah.

MS. O'BRIEN: So, it's there on page 4 of the book in front of you, if that helps.

MR. T. HARRINGTON: Yeah, I've – the requirements for the monthly report is all broken

down with exhibit 3. Generally speaking, it covers all our primary discipline aspects for the project. So it starts off with an executive summary, summarizing our – primarily what our activities were for the month, main achievements, accomplishments. There is a section we were required to report on any types of challenge or delays that were any risks that are to the project.

Obviously, project progress is a big piece of it: productivities, quality performance, engineering. So we'll be reporting on our site queries, concessions – that type of thing. Cost and finance was a big piece of it early on as well. And obviously the procurement is a big driver for it, so we report on our main, major procurement packages, equipment we're buying, yeah, delivery reports, that kind of thing.

MS. O'BRIEN: Okay.

And you just made a reference – the requirement set out in exhibit 3, so that's exhibit 3 to the main contract.

MR. T. HARRINGTON: It is, yes.

MS. O'BRIEN: Okay.

And Commissioner, Nalcor – as you'll see as we go through some of these contracts, Nalcor has – in the form of its contracts, exhibit 3 will be consistent throughout all of its contracts as the reporting requirements. Exhibit 9 is one we're going to be looking at in a few minutes with Mr. Harrington. That sets out the key milestones and, again, Nalcor has used that format more or less consistently throughout.

So if we go on this, if we just go to page 10, please, Madam Clerk?

So, here we see the original contract price and it's that \$192.8 million that we talked about a few minutes ago. And I understand that this – in the monthly reports you're actually tracking costs incurred to date and then you're setting out what you expect the final cost of the contrast –

MR. T. HARRINGTON: Yes.

MS. O'BRIEN: – the final forecast cost to be. So here we see the final forecast cost is at the

exact same as the original contract prices of July 2017.

MR. T. HARRINGTON: Yes.

MS. O'BRIEN: Okay.

All right. I'm going to just bring up another example: tab 23 for you, P-02346. So here's another one for, this time, October 2017. And can we go to page 16, please, Madam Clerk?

The format of these changes a little bit over time – not significantly that I could note, but – again, so here we're seeing what the contract amount is. Cost and Financial Report; it refers here to section 6 and 13. What's that referring to?

MR. T. HARRINGTON: That refers to the sections within the exhibit 3 that we spoke about in the agreement, which more details out the cost reporting criteria for your monthly reports.

MS. O'BRIEN: Okay.

And so this sets out what the total contract amount is, then we get some details on the various changes and whether there's a variance or not and it goes right through to the cash flow table here. So in October, again, we're seeing the final forecast cost is the same as what the original contract price is. So, at that time, no growth.

MR. T. HARRINGTON: Yes.

MS. O'BRIEN: Okay.

So looking at – I'm gonna look at some of the change orders and how they may have affected the target cost of labour, so the ATCL.

P-02399, please, Madam Clerk. Tab 30 of your binder.

Madam Clerk, can you make that a little bit bigger?

Mr. Harrington, can you just describe for us what this table is showing?

MR. T. HARRINGTON: Yeah. This is a – you won't find it within the contract agreement, this was a table that came up – it was, kind of, jointly

put together between us and our contract administrators at Nalcor. It's basically our means to track our ATCL over the duration of the project, give us visibility and have that alignment as we go through and as changes get incorporated to keep that visibility.

So, essentially, here you can see a list of any of our endorsed change orders – duly endorsed change orders with us and the client, and on the far-right side is basically our adjusted amount on our target cost of labour. So that 5 million you see is added to the 63.9 that we talked about earlier.

MS. O'BRIEN: So as of change order 25, which is – I think this – I – this table's not dated, but this is fairly current, I believe, is that correct?

MR. T. HARRINGTON: Yes, this would – yep. The change order 25 would probably have been around February. We just recently had two other change orders endorsed – duly endorsed so they're – we're up to, I believe, about 5.8 on top of the original target cost of labour.

MS. O'BRIEN: Okay. So 5.8 million added on top of the original's approximately 65 –

MR. T. HARRINGTON: Yeah. 64.

MS. O'BRIEN: – million.

MR. T. HARRINGTON: Yeah.

MS. O'BRIEN: Sixty-four (inaudible) – yes, 64. My apologies.

Okay. Thank you.

I'm just gonna look again at another – just to sort of get a sense of where the contract is, because your contract is still ongoing.

MR. T. HARRINGTON: Yes.

MS. O'BRIEN: Right.

So you're down here on a break from the site.

MR. T. HARRINGTON: On a break, yes. Okay.

MS. O'BRIEN: Yes.

P-02317, please. Tab 10 of your binder, Mr. Harrington.

Now, this is a document that you provided to us. It's a very small font – I'll ask Madam Clerk to blow it up a little bit. You may find it easier to refer to the one in your binder, but can you just explain for us – so what is this document?

MR. T. HARRINGTON: This is our monthly financial report.

So, early in the project, it was preferred, I think, that we split out some of the financial reporting from our monthly report to an individual format. So, this is something that we submit – our finance group submits to Nalcor on a monthly basis. So, it gives a list of our approved contract amount to date, our expenditures to date and our forecast to complete.

MS. O'BRIEN: Okay.

Madam Clerk, can you put my – oh, there. I've got it here now. Just – I'm just gonna bring you over.

Okay, so can you just refer to some of the numbers here and explain to us – so where you are tracking right now for the current forecasted final cost for the contract?

MR. T. HARRINGTON: Sure.

So, if – I guess on the far left-hand side, you can see that our – basically, our total approved amount for the contract is – and this is up to change order 25, which you just – we just reviewed, is \$201.7 million. The far right-hand side is basically our forecast to complete. So, up above the line, you can see –

MS. O'BRIEN: So that would be the \$201 million here?

MR. T. HARRINGTON: That's the 201.3.

MS. O'BRIEN: Yes. Okay.

MR. T. HARRINGTON: So, we're actually tracking under our approved contract amount right now.

MS. O'BRIEN: Okay.

And I understand – you just said it then, you're actually tracking under your approved amount, so I understand that this is because, in some areas at least, your productivity has turned out to be better than what you had expected it to be. And I believe this is shown here in some of these negative numbers here on the right-hand side of the page.

Could you explain that for us, please?

MR. T. HARRINGTON: Sure.

Yeah, now we are tracking quite well actually. So, you will notice that there's a few numbers there. So if you do see a negative number there – that 2.9, that relates to our piping labour. So we're actually tracking – based on our current progress to date and our productivity, we're tracking really well. So, basically tracking under budget of about \$3 million. We're slightly over on our HVAC and electrical, based on our performance to date – not detrimentally over now, but slightly over. And our architectural work is also performing really well.

So, we're actually showing a forecast to come in slightly less on our established budget. So we're at \$2.2 million right now, under budget.

MS. O'BRIEN: Okay.

MR. T. HARRINGTON: That's forecast, obviously.

MS. O'BRIEN: So, I'm gonna come back to that – those productivity results in a few minutes, but one of the things I want to make clear here, although this is – your final forecast cost here is showing at, you know, just over \$201 million, but I understand that there are some additional expected costs that are not accounted for in that amount, and that would be related to delays and knock-on effects?

MR. T. HARRINGTON: Yeah, anything that would relate – in terms of delays, yes. If there was a delay present that we felt entitlement to that would require adjustment on our fixed fee portion, yes, that would not be incorporated in this financial report.

MS. O'BRIEN: Okay. And we're gonna come back to that as well.

MR. T. HARRINGTON: Okay.

MS. O'BRIEN: Okay.

So, let's talk a little bit about delays and what your schedule dates have been. And I'm gonna go back to the original contract P-023 – but I'm gonna bring up only one of the exhibits. So I'm gonna bring up exhibit 9 of the main contract. It's been entered as its own exhibit – P-02342, tab 20.

So this is from your original agreement here, exhibit 9 schedule. And we see a table that follows. So can you just explain, please, what we're looking at here?

MR. T. HARRINGTON: Right.

So the way the contract was structured, obviously, is that there was an agreed list of primary interfaces, mainly work front interface identifiers as well as milestone targets for the contract. So you can kind of see that they're split within the exhibit. The interface is obviously our accesses to different work areas or access to deliverables from the client in terms of equipment. There was a – for a couple key systems there that they were providing to us, and the milestones that were obviously the target dates that we were expected to hit.

So that basically establishes our, I guess, the main framework for our baseline schedule, and everything would be planned in terms of our access dates and what our agreed target milestones would be.

MS. O'BRIEN: Okay. So here we see, you know, this would be access to lower intake structure, so that's the date; October 3rd of 2017 is when Cahill-Ganotec would –

MR. T. HARRINGTON: Expect to (inaudible) –

MS. O'BRIEN: – expect to have access to that to do your work there.

MR. T. HARRINGTON: Yes.

MS. O'BRIEN: Okay. And we see for – under every piece here, we actually have listed a lot of access dates: when the work is going on, when you expect to be substantially complete and when you expect to reach final completion.

MR. T. HARRINGTON: That's correct.

MS. O'BRIEN: Okay.

Now, I understand that many of these dates – this is from the original contract. Many of these dates have not been met. Is that correct?

MR. T. HARRINGTON: Yes, some of – some change, yes. That's correct.

MS. O'BRIEN: Okay.

I'm just gonna take you through that. I understand – can we bring up please, Madam Clerk, P-02363, which is at tab 27 of your book, Mr. Harrington.

So this relates to change order 17, and it says – the description of this change is "Interface and Milestone Dates revised as per attached Rev 8 of Exhibit 9." I don't think the actual new exhibit is attached to this document, but I understand that this change order – some but not all of the schedule – or exhibit 9 dates were amended. Is that correct?

MR. T. HARRINGTON: That's correct, yeah.

When we received – I believe we received this document back in around September or October of last year – at that point, we'd have – had a lot of discussions with the client in terms of how the schedule was playing out, and eager to re-establish a baseline that we felt would be – give us all something to plan towards. This was the first crack at it. They made some adjustments in terms to some of our primary interfaces, which were accessed to the area just around the turbine pits for each one of the units, and then the subsequent milestone to that in terms of either our readiness for dry-commissioning of each unit.

We felt that it wasn't a comprehensive, I guess, crack at the entire exhibit 'cause we didn't have – some of our interfaces had changed and we did have liquidated damages provisions within our

contract that had steep penalties as well. So, obviously if we were – if there some was some agreement that the schedule had been adjusted, that we should be incorporating all the changes in each one of the interfaces and then also, subsequently, what those milestones would look like.

So, this change order we never actually duly endorsed from a Cahill-Ganotec side.

MS. O'BRIEN: Okay, you're – so, Cahill-Ganotec was not satisfied with this. You're looking for a more comprehensive – a new – a fully revised exhibit 9.

MR. T. HARRINGTON: That's correct, yeah.

MS. O'BRIEN: Okay.

And I understand that has not happened yet, but it's in the works, to your knowledge?

MR. T. HARRINGTON: It's been in – some constructive dialogue still continuing with us and our client. So, understandably they had a changeup in this – the main primary civil contractor on site back in the fall, and subsequently just working out their schedule with the new group, Pennecon, that's in.

Ultimately, that will also have an effect on how the turbines and generator assembly goes in terms of timing there. And our work just tends to be the – we're always the last ones in the balance of plant, so once they work through that they're committed to giving us a more comprehensive – here you go, this is your remaining interfaces and the milestones that we expect you to hit. Yeah.

MS. O'BRIEN: Okay.

And a few minutes ago you referenced liquidated damages, so I'll perhaps summarize how I understand that. And you can just let me know if I'm right or wrong, but –

MR. T. HARRINGTON: Sure.

MS. O'BRIEN: – under your contract, if Cahill-Ganotec was to not meet a schedule date through some fault of Cahill-Ganotec's, then you could actually be charged liquidated damages – in

other words, a dollar amount for every day you were late.

MR. T. HARRINGTON: Yes (inaudible).

MS. O'BRIEN: And if you were late, and Cahill-Ganotec's position was: We were late but through no fault of ours – it had to do with another contract or something that Nalcor did – then you would – not expected to be charged liquidated damages if it was through no fault of your own.

MR. T. HARRINGTON: Yes, exactly.

MS. O'BRIEN: Okay.

And this is often an area of debate back and forth between owners and contractors as to who caused delay.

MR. T. HARRINGTON: Yes. Exactly.

MS. O'BRIEN: Okay. All right.

So I know that we have another change order here that's at tab 28 in your book, and that's P-02364. And I understand under this – under this change order, there was some – it addressed the incremental cost of some of your fixed fee portion for additional change-order hours, but it didn't address the impacts of time or overall schedule or time delay.

Is that correct?

MR. T. HARRINGTON: That's correct. Yes.

THE COMMISSIONER: This is tab (inedible)?

MS. O'BRIEN: Sorry. Tab 28, Commissioner.

MS. O'BRIEN: Okay. So –

THE COMMISSIONER: So this one didn't cover what?

MS. O'BRIEN: It – as I understand it, Mr. Harrington – it covered some of the incremental costs for your fixed fee portion but not the full impact of time delay.

MR. T. HARRINGTON: Yes. That's right. They're just individual changes that were added to the contract that were reimbursable-based. There was an agreement established and that was incorporated in the contract and in the change order that there would be an incremental amount accounted for for our staff management piece – that lump sum or fixed fee portion. And also, the site installation component, which you talked about earlier, which is basically our infrastructure, 'cause as you add work to a contract – yet hours of contract, they have to be managed and people need places to, obviously – they need facilities to work out of and, you know, they need washrooms to go to.

So that was supposed to cover that – those – that piece, just on individual-change basis. It's not accounting for, well, if you're moving a contract, you're pushing six months or 12 months, it's not a consideration. It's just specific to the doing that piece of the work and managing that specific piece of the work.

MS. O'BRIEN: Okay.

And in terms of – for the overall effects of extension of time, I'm gonna bring up P-02315. And that's at tab 8 of your binder. And this is a letter to Scott O'Brien of the Muskrat Falls Corporation, which is one of Nalcor's subsidiaries, from you on February 11, 2019. The re line there is: Notice of change – project extension of time.

Can you please explain what this letter is addressing?

MR. T. HARRINGTON: It's basically just a follow-up to most of our ongoing dialogue that we've had on the exhibit 9 and the changes that have kind of occurred and that's been kind of going on since early last year. Essentially, even dates back to that change order 17 where we did have that first crack at – okay, well this is some new interfaces, new milestones, but we have obviously seen some slip in schedule since that time. Again, we had the civil contractor change that had happened during the fall that was subsequent to this. The letter, I guess, we had issue with that was relating to change order 17, and this one is just kind of follow, to put the client on notice that we would be pursuing some type of extension of time claim in the near

future. Once we had finalized comprehensive exhibit 9, that we can re-establish that we're – baseline looks like, new forecasted projected schedule and, obviously, our completion timeline so far.

MS. O'BRIEN: Okay.

So there in the first package does say: "As discussions continue between Contractor and Company regarding the schedule outlook for the balance of the project, it is the understanding of Contractor that Company is reaching the stages to finalize a newly revised Exhibit 9 that will address the concerns raised by Contractor since early 2018."

So –

MR. T. HARRINGTON: Mm-hmm.

MS. O'BRIEN: – that's just what you were referring to.

I think then you – you talk about, in the second paragraph there: "However, Contractor cannot overlook and dismiss that the evolving project schedule will result in a substantial back-loading of planned construction and commissioning activities due to the deferred availability of key work areas and outstanding engineering."

So, you're setting up the basis of what the issues that you're facing. Is that fair to say?

MR. T. HARRINGTON: Fair to say.

MS. O'BRIEN: Okay.

And so then, down here in the last paragraph, it says: "Based upon discussions with Company, it is understood that the balance of key interfaces will experience further delays, Contractor has taken appropriate actions to mitigate where possible by reducing its workforce and adjusting shift schedules to prolong turnaround days off as a means to promote retention of Personnel. Current preliminary forecast histograms reported by Contractor detail a substantial extension of resources into the later part of 2019."

So this is what you're telling them, the actions that you're taking to try to manage this –

MR. T. HARRINGTON: To mitigate any costs.

MS. O'BRIEN: – to mitigate.

MR. T. HARRINGTON: Exactly.

MR. O'BRIEN: Okay.

And so, you – so this is a claim, or this is a notice that you're giving them under the contractor that there's – essentially, you will be making a further claim of some type when the schedule's formalized. Fair to say?

MR. T. HARRINGTON: Yes.

MS. O'BRIEN: Okay.

And so that will – that is – and I think it says that there in the last paragraph of the letter, Commissioner – addresses when the exhibit dates are formalized, that contract will fully evaluate the plan and present the formal change request.

So ultimately, that did is still left to be done.

MR. T. HARRINGTON: Yeah. Well again, we don't have that finalized exhibit 9 yet. There's active dialogue, we understand they're working on it and we're – but again, that's its – obviously, we do have to – there is some impact to us in terms of a – on our fixed fee portion, so we are seeing our schedule slip later this year than it was originally expected, so.

MS. O'BRIEN: Commissioner, so this is obviously – this contract is still a live contract between Cahill-Ganotec and Nalcor. And based on some of your earlier direction – decisions regarding commercial sensitivity, we are – we recognize this is a commercially sensitive area. It's not our intention to interfere with what would otherwise be normal commercial negotiations between that two entities.

However, because your terms of reference ask that you evaluate cost increases of the project up to reliable estimates of a cost to complete, we have asked Cahill-Ganotec to prepare a confidential exhibit for you that gives more detail on their claim. And that is the confidential

exhibit that I had entered at the beginning of this morning's sessions as C82.

So that's there for your eyes and I don't intend to address it any further with Mr. Harrington.

THE COMMISSIONER: All right.

MS. O'BRIEN: Thank you.

Okay.

So, Mr. Harrington, a few minutes ago, you talked about how in – at least in certain areas, you have achieved productivity on your scope of work that has been as good as, and in some cases, even better than what you had initially anticipated.

What do you believe are the reasons for the strong productivity you've seen?

MR. T. HARRINGTON: Several reasons, I guess. Fundamentally, I think it begins – we have an excellent management team. Cahill-Ganotec, well, we have a really good blend of experience, you know. You've got up-and-coming engineers that have worked in powerhouses. Me, myself, I mentioned my experience with – on the Wuskwatim project in Manitoba. We have a lot of personnel from the Ganotec side that had previously worked on the Lower Mattagami Project a few years ago. So, we've had a really, really good blend of experience levels, like I said, and we managed to establish a really, really high-performing management team.

I think another reason is, just our understanding and knowledge of the local labour markets. The Cahill Group has been operating out of Newfoundland and Labrador for decades now. We've have a good sense of who the good supervisors are, union supervisors particularly. So we were very selective when we're utilizing the name-hire provisions within the collective agreement on who we were choosing as our foremen or GFs and obviously they – with that comes other name hires in terms of who we're bringing in to work on our crews.

And I think that we know generally who we want there to be driving productivity and know that they have been proving themselves in terms

of making sure the workmanship is good and understanding of the technical requirements. And having that knowledge has really helped us even on the Ganotec side as well. Even though they're Quebec-based, where they're a part of the Kiewit umbrella, they have a lot of our key management staff was – is based out of Newfoundland and worked on past projects: Long Harbour, Hebron. And they also bring a lot of experience in local labour market to the table. So having that – to be able to leverage that in terms of how your management team, it's paid a lot of dividends for us.

Also, I think our – we have really superior controls mechanisms within our – in terms of our project controls IT computer system.

So, basically, the way that we do our time management on site, it's all tracked daily; we use tablets. That gets entered into our computer-based management systems. Our progress is updated along with our labour productivity; we get a daily report every morning. When I come in I have an email telling me what my – whose productivity was the day before, based on what cost code, based on the discipline.

So, we're able to react; we don't wait until, you know, a month until we get a monthly report to look at our, you know, productivities and performance. We're very reactive to that, and we drive the productivity, so it's – and also, I think, you know, the client has been very focused on it as well.

So, up front, they were very, very aggressive in making sure that we established a firm productivity program on site. There was requirements within exhibit 3 that established that. All – and ultimately we have a weekly meeting where we review our productivity numbers with the client, you know, talk to them about things that were going well, things that are not going so well. So I think that helps as well. I think, you know, it has to be coming from all fronts – being from management right down to the supervision, from your client as well; it all has to be driven.

So I think that's been – allowed us to be pretty successful.

MS. O'BRIEN: Okay.

You were talking about your strong management team and the experience that you had from within both the Cahill group and the Ganotec group. Would these be primarily, like, long-term employees of these companies or would you have been hiring people to bring them on for this project?

MR. T. HARRINGTON: The majority of their staff is long-term employees that have – may not be staff guys but we do have a lot of corporate staff base for Ganotec and Cahill, but we do have, also, some project hires that we would hire in that we've – worked with us for years and years, so – and I think that helps as well.

I mean, you have people that are committed to having your – you – they want to see the company perform well, so I think that also helps drive the productivity, right, so ...

MS. O'BRIEN: And you did talk about the importance of having good foremen, and you used the word GF, so, or the –

MR. T. HARRINGTON: General foreman.

MS. O'BRIEN: – general foremen, okay.

So you're looking to get experienced people right on supervising on site –

MR. T. HARRINGTON: Yeah.

MS. O'BRIEN: – people who have a proven track record of getting good productivity from their crews. Is that fair to say?

MR. T. HARRINGTON: Oh, definitely and, I mean, these guys also have – will be recommending names of people that they've – they have worked with for past projects. So again, like, we have an advantage, just being – having operated in the local labour market and working on these major projects. So I think that really gives us some strategic advantage when you're entering in a project like this and you're – and you have name-hiring provisions within a collective agreement, and we've been taking full advantage of it.

MS. O'BRIEN: Okay.

And we've already talked a bit about the commercial terms of your agreement and how that – the risk of poor productivity – if you were experiencing poor productivity as a result, you could start losing money on this project – Cahill-Ganotec could.

Is that a factor in how you manage productivity?

MR. T. HARRINGTON: That is a major factor, obviously, yeah.

So, obviously we're in the business; we're not going to survive unless we make a profit off a project, so having that motivator is certainly going to, you know, increase our awareness. Now, obviously, we wouldn't operate very long if we weren't, you know, customer-focused and want to perform well and push productivity, so – but yes, that's an (inaudible) incentive as well.

But, you know, we do run our business with the expectation that we're going to be high performers, so – but yes, I – that would be a good motivator.

MS. O'BRIEN: Okay.

Now, you talked about the name-hiring provisions under the collective agreement, and we're going to hear more evidence as time goes on in Phase 2 with respect to that collective agreement.

Had you, or Cahill-Ganotec generally, had previous experience working on a special-project-order project in this province with a similar collective agreement?

MR. T. HARRINGTON: Yes, I did work on Hebron (inaudible) some of our building-trades-based agreements and a lot of members of my staff obviously worked in similar situations –

MS. O'BRIEN: Okay.

MR. T. HARRINGTON: – and our labour relations coordinators, yes.

MS. O'BRIEN: Okay.

So, other than the name-hire provisions of the collective agreement that you've talked about being able to take advantage of, are there any

other aspects of the collective agreement that you believe you've been able to, you know, to use leverage, to enhance your performance on the contract?

MR. T. HARRINGTON: The work team – we've managed to utilize pretty well. So, very early in the project we established a site-services work team. So, I guess for people in the room that may not be aware, it kind of acts as a composite crew. So, basically a team made up of various different trade-based components – so you'll have your teamsters, labourers, iron workers, cleaners. So we basically established a core work team that would operate as our – basically our site operations group.

So, they would handle everything from, you know, snow clearing, cleaning. So, it takes (inaudible) – it allows us to have utilization of maybe somebody that might not be totally – normally that would be part of that group or that crew. So again, in terms of a labour crew that might be moving material around or clearing snow. We've had our iron workers, for example, who are normally (inaudible) cranes are part of that work team so they've, you know, they might be fueling equipment some day or clearing snow.

So, that's helped us fully utilize our personnel and – which obviously keeps the cost down, so ...

MS. O'BRIEN: Okay.

Now, in our interview you spoke a bit about your personal management style and how you believe it affects productivity, or positively affects productivity. Can you give us some details on that, please?

MR. T. HARRINGTON: A tough question to answer, I guess.

Me, personally, I guess my management style – I'm really a firm believer in leading by example, I guess. I wanna make sure that all my employees know, or everyone on my team knows, that I'm in the trenches with them working, pushing the job – that we're gonna be one of the first ones in in the morning; we're the last ones to leave.

Big believer in positive motivation, I guess; you know, people need to be inspired when they're going to work. They need to be – and I think that, you know, they don't want – I don't look at taking an aggressive approach, and I've seen that approach as well, obviously, on jobs, particularly in construction. It's not really my style. I more look at opportunities to be engaged with the workforce and engaged with my management and, you know, obviously give them constructive feedback if things aren't going well but also give them that positive reinforcement on things that are going well.

So, I guess that – guess how I'd describe my style.

MS. O'BRIEN: Okay.

And one piece that you said that I would like to bring out is that in the mornings you spend time going around to the toolbox talks. So can you just tell us a little bit about that?

MR. T. HARRINGTON: Yeah.

So I think that's actually some – one of the reasons I believe it's kind of really helped our productivity as well, is that one of the things from myself and my core management team, our most senior leaders on site, what we do every morning is that we will participate in our morning toolbox with the crews.

So we – we're situated just about five minutes from the powerhouse, down by the main admin area. But, obviously, toolbox starts at 7 o'clock, so all our main managers including myself will go down and we'll participate in our crew's toolboxes. We'll kind of rotate, so I'll attend one of the pipefitters one day and I'll go to the electricians the next day, just to – gives you an opportunity to meet your foremen, meet your workforce, that kind of thing.

And I think that goes a long way. I think people tend to – they work – they'll maybe work a little bit harder if they know who they're working for. They have that personal connection. So that's something I certainly aspire to do and I know our management team, all the guys have – are really committed to doing so as well. So we usually have a very – a large attendance of our management staff at our toolboxes.

So if you walk in the powerhouse in the morning, you'll see a lot of Cahill-Ganotec white hats there, participating in the toolbox and, again, you build that personal connection with the workforce. And I think that certainly helps when you're walking around – me, myself, and, you know, I think a lot of the – a lot of the crews – they wanna know, like, who the project manager is and get to know him and, obviously, sometimes I get feedback in the toolbox as well about, you know, things that they like and they don't like. And they wanna know that you're, obviously, committed to making adjustments and making improvements to the job experience.

But, I mean, we've had a great relationship with our workforce, great morale. I've been really, really lucky from that regard.

MS. O'BRIEN: Okay.

One thing you just said that probably needs a little bit more explanation for some people at least, you said if you go you'll see a lot of Cahill-Ganotec white hats.

MR. T. HARRINGTON: Mm-hmm.

MS. O'BRIEN: So explain for those of us who don't work regularly on a construction site, what does that mean?

MR. T. HARRINGTON: Oh, it just – usually a hard hat colour. A lot of the times, a supervisor or management staff would wear a white hard hat. That was what I was referring to. So just down to the tool boxes obviously, our core workforce will wear blue hard hats. But a lot of the white hats would be, you know, our management staff and supervisors, so.

MS. O'BRIEN: Okay, thank you.

All right, with respect to this, I'd like to move now to a few questions with respect to safety culture. Have you worked on projects with a safety culture similar to that of Nalcor's on the Lower Churchill Project?

MR. T. HARRINGTON: Yes, I have.

MS. O'BRIEN: Okay.

And you'd also talked about having worked in Wuskwatim.

MR. T. HARRINGTON: Mm-hmm.

MS. O'BRIEN: So how – can I get a comparison of the safety culture there at Wuskwatim of – Manitoba Hydro project – and that at Nalcor?

MR. T. HARRINGTON: Yeah, I'd say Wuskwatim ran a little looser in terms of their safety practices. But again, that was almost a decade ago – eight or nine years ago. I mean, safety within the construction industry has changed dramatically even since I've started there almost 15 years ago. So it's – you – I've seen that evolve project to project, more safety focus, and so it's tough to make that comparison.

MS. O'BRIEN: So the difference in what you're seeing on those two projects might just be the function of the time that – you know, eight or nine years or whatever that passed between the two of them?

MR. T. HARRINGTON: Yeah, I'd say it definitely could be that for sure.

MS. O'BRIEN: Okay.

All right. Now, there is some evidence – and we just heard from the independent engineer, Nik Argirov, this morning talking about that an increase in safety culture over time does have an impact on productivity rates in that, you know, they take – wearing more PPE, the time that they – the talks and the meetings and stuff that have to go on. Is it fair to say that the productivity rates that you used in assessing this project already accounted for that safety culture?

MR. T. HARRINGTON: Yes, I mean, we pretty much know – again, Cahill and Ganotec, we've been operating these types of major projects, oil and gas, and we've been doing this for a long time now. So we understand what our clients are – commitment to safety. And again, like I said, the culture has changed a lot even since I've been in the industry. So we're pretty, pretty tuned on what the expectations are going into these projects when it comes to safety and what that criteria is. So yes, I would say that

going into this project, we were pretty aware of what the allocations would be.

MS. O'BRIEN: And accounting for that in your estimates?

MR. T. HARRINGTON: Yes.

MS. O'BRIEN: Okay.

I'm gonna go to Exhibit P-02308, please, tab 1 of your book.

So there's an email on the front of this, but the first substantive page is going to be at page 3. And these are a number of slide decks that we have from Cahill-Ganotec, and it's referring to cold eyes review attachments. So just generally, Mr. Harrington, can you explain to us what this work was, why it was done?

MR. T. HARRINGTON: Sure. I believe within exhibit three of the contract there is a requirement for us to establish a productivity task force. Essentially what that was was two senior executives within the Cahill and Ganotec divisions – one from each – that weren't necessarily directly connected to the project from a day-to-day – just coming in as oversight or as an outsider looking in – to do what they call a cold eye review. So bringing in a, entity that's not really involved, who have a lot of experience in major project execution and come in, ask key questions, interview all our key supervisors and our management team – myself, my deputy project manager, any of our core discipline leads – and just go through a, basically, a Q&A session and establish where we are and how we're set up for execution of the project. So this happened just prior to our mobilization or the start of construction in October. We did one – I think it was probably around the September time frame.

MS. O'BRIEN: Okay. And if we could just go to page 33, please, here, Madam Clerk. There's just one section I want to talk to you about. So this is in the – Executive Summary section – and my – this set of questions that I'm asking – I'm kind of looking at Nalcor's relationship with Cahill-Ganotec as one of its contractors.

So it says here – “The relationship is pretty good. However, not to the level required for this project. There are some areas of concern:

“Currently the PM has limited communication with the Owner’s project manager (Scott O’Brien) named as the point of contact in the contract.

“The relationship/communications have been very contractual rather than an open communication looking at best for project solutions.

“Need the Owner point of contact when the project mobilizes to site.”

So I take it the PM here – that’s you, is it? Project manager?

MR. T. HARRINGTON: Yes.

MS. O’BRIEN: Okay. So can you just – and I know this is very early days of the contract, but can you just explain to us, please, what was going on at that time that led to these notes being made in the executive summary?

MR. T. HARRINGTON: Sure. I guess the reference there to it being very contractual, I think, the project, in terms of the dynamic, the relationship up front was a little bit rocky. I’m not sure exactly why, but we did feel as the project was kicking off, we were getting closer and closer to mobilizing for construction, there – some head-butting started; there was letters kind of flying back and forth. I think a lot of people felt that we weren’t really getting off on the right foot.

We hadn’t really started construction yet and it’s – I guess our impression was that perhaps the client was being a little bit too overcautious on some of the provisions within the contract and some of the language there and certainly pushing hard. And I think they were certainly just – in the best interests of how they felt that, they wanted to make sure that we were off to a good start. But certainly, it was causing a bit of a clash there.

It got to a point where it was discussed within our steering committee, it was addressed with the steering committee from the Nalcor side, had a very constructive conversation about how it was going and everybody felt we needed to take a bit of a deep breath, a step back and a – and I think it’s really improved since that time, actually, to be honest with you. I think it was a smart move to happen up front, to have – you know, air out these types of conflicts and try to give them some reassurance that we were quite prepared to hit construction in an organized manner and just, you know, give us a little bit of a – put some faith in us. I mean, they hired us for a reason, so – and they were understanding with that. I think maybe, perhaps, they had some, you know, past issues on some of the other contracts so they were – obviously didn’t want to repeat. So it was a lesson learned from them that they were – wanted to make sure they – they started the project from – gave it the right start and made sure they were set up – that we were set up properly. And I think that having that discussion certainly helped that.

I think when this was done, that was just prior to us actually, you know, basically, sitting down with the steering committee and going through some of the issues primarily. And the reference there of, I guess, the point of contact is that, I guess, the contract establishes a contractor representative and a company representative. So the company representative, Scott O’Brien. I’m named as the contractor representative, so – basically when it was – that’s how the contract reads, and I would expect it to have that continued dialogue with whoever my representative would be on the other contract (inaudible). But I think Nalcor’s approach was, yes, that’s established in the contract but our – I would be more liaising with the package lead. So I wanted – we were – there were some uncertainty on who, once I went to site full-time, that was always my intention to go to site full-time, that who person would be would be my main point of contact, which is why the reference there about who that point of contact we wanted mobilized to site.

MS. O’BRIEN: Okay.

And so – you just – you’d already spoken to us a little bit earlier about the steering committee that you report to – so that steering committee made

up of Cahill and Ganotec senior people. So I understand that your steering committee would be that steering committee but there was also a steering committee on the Nalcor side of things –

MR. T. HARRINGTON: Correct.

MS. O'BRIEN: – where they had some more senior people who were – who had an over, you know, an oversight role to play on this contract.

MR. T. HARRINGTON: Correct.

MS. O'BRIEN: So they would – so your senior steering committee spoke to that senior steering committee and that's how this issue ultimately got resolved.

MR. T. HARRINGTON: Yes, yeah.

MS. O'BRIEN: Okay.

Okay, and on that – I wanna stay on a similar theme. Can we go to P-02310, please? Tab 3 for you, Mr. Harrington.

So this is a little further on in time. We are at February 6, 2018, and we have some emails and actually some Minutes of Meeting attached to these emails, with – the subject is: "Concession #16." But when we look at the topic of the attachment it says: "CH0031 deliverables joint session with SNC in Montreal" There's a discussion here in the email about a meeting to discuss opportunities and such. I'm not going to go through it in a great amount of detail, but can you tell us, generally, what was going on here?

MR. T. HARRINGTON: Sure.

And this, again, dated back to a very early period in the project. So, I guess, one of these things that fleshed out from the steering committee meetings was – and just really right after, I guess, the colds eye review – was looking for opportunities on making sure that we're starting the project off on the right foot. One of the recommendations was to have a type of a workshop at the SNC office in Montreal with some key people, including a couple of people from my management team. I was in attendance, my deputy project manager at the time, my engineering lead and my sponsor, John

Henley. And we met with this several group – several people from SNC, as well as a few of the key people from the Nalcor side. So Scott O'Brien, Paul Adams, a few others.

Basically the idea was to sit around the table and they reached out to us and said listen: You guys are experienced, you've done this type of thing before. Can you give us some feedback from the – anything you seen in the specifications or anything to do with our documentation and approval process that would help streamline, in terms of looking for opportunities to save cost, make quicker decisions? And again, I think it was just a lessons learned type of process for these guys, where we were one of the last contracts and looking for some corrective actions and follow-up.

So we had this joint session, spent most of the day in Montreal. We came to the table with several items that we identified within their technical specifications. Things that we thought that, you know, they might be nice to have, but they're not necessarily necessary for this type of project, and could potentially save you some cost. And then also give some recommendations on how we can streamline the documentation approvals: Is there opportunities to kind of do design meetings with our groups rather than, obviously, you submit a document, you put it into a workflow and then eventually it gets looked at by some engineer on the other side, you know, do more coordinated design reviews? So, you know, basically just promoting collaboration between the groups.

MS. O'BRIEN: Okay.

MR. T. HARRINGTON: So this was kind of a fallout of that. We had gone through multiple areas that once we finished that workshop we identified multiple candidates for, I guess, concessions is what you would call it, within the technical specifications that we all agreed sitting around the table: Yeah, this is best for the project. This would promote cost savings and we would submit the documents that – we looked for formalized approval of what we discussed around the table. So this was a conversation discussing one specific case.

MS. O'BRIEN: Okay, so coming together to look for ways to save both cost and time I take it?

MR. T. HARRINGTON: Yes.

MS. O'BRIEN: All right.

And then, so ultimately, the things that you identified here, were you able to put all or many of them into practice successfully?

MR. T. HARRINGTON: We did, yeah. We did. There was some discussions around how – in terms of how the cost savings piece would work, obviously. But we did get over that hump as well and we agreed to a cost-sharing agreement. So, essentially, that any opportunity that we found within their contract provisions that – or criteria that we said: Oh, guys, this is an opportunity for you to promote schedule or cost savings. And they agreed we would do a 50-50 cost sharing. So that encourages us as the contractor to keep looking for those opportunities and obviously it saves the project money.

MS. O'BRIEN: Right.

MR. T. HARRINGTON: So it's a win-win.

MS. O'BRIEN: Okay. All right. Thank you.

One detailed question I had here and it has to do with – on page 5, which is item 7. I would like to – you to give us a little bit of an explanation on that. If you just scroll down a bit, Madam Clerk.

So this is – one of the things I noted here is under the description Path to First Power it says: "SLI Path to first power was presented. First power does not mean commercial power; Draft Path to First Power report to be provided to CG; Discussion about post first power and working under permit – risk of a drop in productivity. LCP clarified that first power is only for demonstration and then back to normal construction operations."

So can you just explain for us what was the discussion here that these notes are addressing?

MR. T. HARRINGTON: Right.

So during the workshop there was an opportunity that I think internally with Nalcor there were – obviously first power is a very key milestone for the project. So they wanted to basically lay out to us and present to us what their plan was for first power and that it might be slightly different on how our, I guess, our schedule provisions with our contract is structured. So basically laying out to us that they're putting this as a priority in terms of their first power milestone and with that we had some constructive discussions on what that would look like.

So this discussion about working on a permit, so if you're – our concern was, and we had some open and very good dialogue about, is that: Okay, well, if you push – you're reaching that first power milestone and bringing the plant into operation, like, really focused on just getting unit 1 up and running, and just to hit that first power milestone. You also have – there's consideration to the rest of the project that you have to think about because obviously construction flows, if you enter into a permit-to-work situation where, at that point –

MS. O'BRIEN: Just explain that, why you'd need a permit-to-work, then, if it was already – if you're energized?

MR. T. HARRINGTON: Right, so once you – once a plant is into operation, you basically have to treat every piece of equipment like it's a live piece of equipment. So in order to access a panel to finish off construction, you would need, you know, basically you have to go an isolation authority and say: I need access to this panel. Get a permit to go in and physically do your work and make sure all your lockout/tag out was in place.

So all of these big projects there's always that – I guess, I wanna say caution, but there – it's a sensitivity around when that point is where you're looking to hit your time frame from permit-to-work. Because obviously construction tends a little bit – to flow a little bit better when you're not working on live systems and everybody knows there's no live energy in the plant. But as soon as you start going into the commissioning phase, and bringing systems online, then you will enter that permit-to-work

and that tends to slow things down and make things a little bit less productive.

So we had a lot of dialogue around there. I mean, they were certainly open to any feedback we had. Because, again, it was a very constructive workshop in general that was just kind of summarizing our discussion on it, that they would be presenting a document to us that was basically their path to first power, which they did just prior to that Christmas. And we gave them some feedback and basically it was just identifying, you know, every critical subsystem that they would need – or they think to run the first turbine. And they were looking for us in terms of contractors that had experience in powerhouses to give them some feedback, and some of the, maybe, things that we might see in terms of gaps and – yeah, the discussion just kind of continued on from there.

MS. O'BRIEN: Okay.

So LCP clarified that first power is only for demonstration and then back to normal construction operations. Can you explain that for us? What was the –?

MR. T. HARRINGTON: Right.

So I think that was kind of – the intent was is that they weren't necessarily committed to – and, I guess, kind of raised from our concerns about potential productivity losses that once – necessarily when they reach first power which would – they would ultimately be turning the – turning unit 1, the first turbine, so we could generate power. That may necessarily not mean that they're actually gonna enter into commercial operation and start, you know, outputting power full time. It was more looked at as, okay, we've demonstrated we can reach first power, it's a great achievement for the project. And that was kind of, I guess, the nature of those discussions.

MS. O'BRIEN: So then, the idea then – the discussion about them – start up the turbine, achieve first power, prove that it's working, essentially, then power down and then let the rest of the construction finish.

MR. T. HARRINGTON: Yes, I mean – well, we didn't get to all of their specifics of – I guess

they have – I can't speak to all of what their game plan would be; it was very high-level discussions, but that was generally what the discussion was – surrounded, yes.

MS. O'BRIEN: Okay, thank you.

In terms of the level of oversight you received from Nalcor, on this past Friday we heard from a panel of workers and one of those men was Ed Knox. And in – I'm going to summarize his evidence a little bit for you, but in his opinion Nalcor was giving too much oversight to Astaldi, particularly, sort of, 2015 on. I don't know that he used the word micromanage but that was certainly the impression I got; they were a little too into the details of the work.

Is that your – consistent with your experience as the relationship between Nalcor and Cahill-Ganotec?

MR. T. HARRINGTON: No, I mean generally we've had a pretty good working relationship with them. I can't speak for other contractors now, and –

MS. O'BRIEN: No.

MR. T. HARRINGTON: –it's – that could have been different circumstances involved, and if there was some perception of micromanagement, I mean, we've – I think they have given us, you know, basically the opportunity to prove ourselves and operate and they don't, you know, get into our business that often because obviously – and maybe that's to do with our experience. I'm not sure but, generally speaking, I don't feel that I've been micromanaged or anything of that nature, no (inaudible).

MS. O'BRIEN: So you feel there's been an appropriate level of interaction in terms of Nalcor permitting Cahill-Ganotec to carry out its work as it sees fit.

MR. T. HARRINGTON: Yeah, I think, particularly since – as the time's gone on, it's – they've seen us – we've been a high performer since early on in the project and, you know, there's – obviously you're not going to swoop in and stand over somebody's shoulder if they're – if things are tending to go fairly well.

So we're 60 per cent complete into construction now, and I think generally we've established that level of confidence that, you know, they see that we're safety-oriented, committed to quality. Our workmanship has been excellent; our productivity numbers have been probably the best on site, so I think they've given us the opportunity to run our business.

MS. O'BRIEN: And a few minutes ago you talked a bit about who – that although under the contract your point of contact was Scott O'Brien, but ultimately in practice it has turned into – it has become the package lead for this package. Who is that?

MR. T. HARRINGTON: A man named Kumar Kandaswamy.

MS. O'BRIEN: Okay.

And so, is it fair to say that that's who – you deal with Kandaswamy, Mr. Kandaswamy, primarily with some interaction with Scott O'Brien?

MR. T. HARRINGTON: I guess my relationship with Scott is limited but yes, primarily if there's a burning issue, I mean I deal with a lot of, I guess, (inaudible) on the Nalcor side but if – any burning issues on the package that it would be, yes, I would reach out to Kumar as my main primary contact, yeah.

MS. O'BRIEN: Okay.

And Mr. O'Brien, we know, is based in St. John's. Where is Mr. Kandaswamy based out of?

MR. T. HARRINGTON: He's based out of St. John's.

MS. O'BRIEN: St. John's as well, okay.

Compared with other projects that you've worked on of a similar nature, would that be usual – in other project, the project managers that you're dealing with on the other side, the owner's side and the package leads, would they be on – in terms of their time on site, would that be – what you're seeing here in the Muskrat Falls Project, is that consistent with what you've seen on other project? Or are they on site more,

or are they on site less than what, you know, compared to your other experience?

MR. T. HARRINGTON: I'd say slightly less, yeah.

MS. O'BRIEN: I'm just about finished my direct examination, Commissioner. I may have one last question but I wouldn't – it's probably time – good time for the morning break, and then –

THE COMMISSIONER: All right.

MS. O'BRIEN: – I can just ensure I've got everything covered.

THE COMMISSIONER: All right. We'll take our morning break, then, for 10 minutes.

MS. O'BRIEN: Thank you.

CLERK: All rise.

Recess

CLERK: Please be seated.

THE COMMISSIONER: Ms. O'Brien, when you're ready.

MS. O'BRIEN: Thank you.

Mr. Harrington, that completes my detailed questioning. But before I sit down, I just wanted to give you an opportunity if there is other relevant information that you believe the Commissioner should hear from you, particularly, obviously, with respect to cost and schedule overruns on Muskrat Falls Project. I wanted to give you an opportunity to give that evidence now.

MR. T. HARRINGTON: (Inaudible) I think I've spoke pretty freely about the issues that we've incurred. But we've also had some successes as well, right, so there's – you know, I know there's a lot of – tends to be a lot of negativity around the project, but there's some good news stories as well. We're having a lot of success up there, so ...

MS. O'BRIEN: Okay.

Thank you very much.

THE COMMISSIONER: All right. Thank you.

All right. Province of Newfoundland and Labrador?

MR. LEAMON: No questions, Commissioner. Thank you.

THE COMMISSIONER: Nalcor Energy?

MR. SIMMONS: Good morning, Mr. Harrington. Dan Simmons for Nalcor Energy.

MR. T. HARRINGTON: Good morning.

MR. SIMMONS: I – you described for us a little bit earlier the joint venture organization that’s been put in place for the Cahill-Ganotec joint venture for the balance of plant contract that some of us know as CH0031.

MR. T. HARRINGTON: Package 0031.

MR. SIMMONS: And you mentioned that a couple of roles were people who’ve described as sponsors. One being a sponsor from the Cahill organization and one from the Ganotec organization.

Can you tell me a little bit more about what the role and responsibility of this sponsor position is?

MR. T. HARRINGTON: Basically, just like a senior executive that offers, you know, experience and oversight to the project, right. So they’ll keep a close eye on it; they’ll also liaison with some executive on the Nalcor side, make sure that the project is functioning properly in terms of the cost, keeping a close eye on how the team is operating, I guess, making sure to keep me in line, that kind of thing. It’s just somebody if I need an ear to talk to, if I’m having some challenges or basically need some direction, help me with some strategy, I’ll lean on their experience.

MR. SIMMONS: Good.

And you’re the Cahill-Ganotec project manager –

MR. T. HARRINGTON: (Inaudible.)

MR. SIMMONS: – for this – that’s the title that you have.

MR. T. HARRINGTON: Yes.

MR. SIMMONS: And you don’t need to give me a lot of detail about this, but can you give me some idea of the extent of your kind of independent authority when it comes to dealing with things like commercial issues or negotiations with your counterpart in Nalcor about work, about the change orders and those sorts of things? How much of that do you deal with independently and when do you have to kind of have to go up further in your organization to your sponsors for approval –

MR. T. HARRINGTON: Yeah.

MR. SIMMONS: – or authorization?

MR. T. HARRINGTON: Very active in the day-to-day negotiations. We have a weekly commercial package meeting with the contract administrators within Nalcor.

MR. SIMMONS: Mm-hmm.

MR. T. HARRINGTON: It happens every week so I attend that, so very active in the dialogue in terms of contract and change orders and so forth.

MR. SIMMONS: Mm-hmm.

MR. T. HARRINGTON: Depending on the value of the change though –

MR. SIMMONS: Mm-hmm.

MR. T. HARRINGTON: – it may need to creep up in terms of our executive sponsors to get their buy-in. But primarily the day-to-day between myself and my deputy project manager as well, we basically handle a lot of the – just our – again, the day-to-day commercial challenges that come up and working with the contract administrators to, you know, prove entitlement and justify any changes and making sure that the contracts been administrated properly.

MR. SIMMONS: So you've said this is kind of an approval level that you have, and that would be a financial approval level, I guess –

MR. T. HARRINGTON: Yes.

MR. SIMMONS: – certain values. And would it be your understanding that on the Muskrat Falls Corporation side, or the Nalcor side, that there's a similar arrangement where people at different levels of the organization have different levels of authority for working these things out with?

MR. T. HARRINGTON: Yes, there would be, yeah.

MR. SIMMONS: Yeah, okay.

So for – the Cahill sponsor is Mr. Henley?

MR. T. HARRINGTON: One of them, yes.

MR. SIMMONS: Yes. And I gather he is based in St. John's, not at the site?

MR. T. HARRINGTON: He is based in St. John's.

MR. SIMMONS: Yeah.

And the other sponsor from Ganotec, who is that?

MR. T. HARRINGTON: The primary sponsor is Mike Buckle, yes.

MR. SIMMONS: Yes, Mike Buckle?

MR. T. HARRINGTON: Buckle, yes.

MR. SIMMONS: And where is he based from?

MR. T. HARRINGTON: He's based in Ontario right now.

MR. SIMMONS: Okay, all right.

And do Mr. Henley and Mr. Buckle spend any significant amount of time at site, or are they able to discharge their responsibilities from their home office locations?

MR. T. HARRINGTON: They'll typically try to visit regularly, probably once a month. We usually have a partnership meeting, which we target every four to six weeks, which are – we basically – the team will do a presentation, a site tour with our sponsors. So –

MR. SIMMONS: Mm-hmm.

MR. T. HARRINGTON: – again, they'll try to be there for every single one. Sometimes obviously, with the – our senior executives, things – schedules can be a little bit difficult to manage –

MR. SIMMONS: Mm-hmm.

MR. T. HARRINGTON: – when you have a lot of these important guys there trying to, you know, manage their time. But usually they'll try to get up, you know, once a month.

MR. SIMMONS: Right, sure.

And presumably they have multiple responsibilities, not just this contract?

MR. T. HARRINGTON: Yes.

MR. SIMMONS: Right.

And – but generally, when you need them, they're available and they're able to contribute without having to wait until they get on site, I presume?

MR. T. HARRINGTON: Oh yes.

MR. SIMMONS: If you have issues that needs to be dealt with?

MR. T. HARRINGTON: Yes.

MR. SIMMONS: Okay.

On the Nalcor side – and I note the contracting party with Cahill-Ganotec is Muskrat Falls Corporation, but generally, we've been referring to all the subsidiaries as Nalcor, so I'll continue to do that. Now, so you're familiar with Mr. O'Brien – Scott O'Brien –

MR. T. HARRINGTON: Yes.

MR. SIMMONS: – on the Nalcor side, whose title is also project manager, same as yours. But do you regard him as being your counterpart in the Nalcor organization, or is he at some other level there?

MR. T. HARRINGTON: Well, early on I probably would have thought that way, but –

MR. SIMMONS: Yes.

MR. T. HARRINGTON: – no, I haven't been dealing with him in a –

MR. SIMMONS: Right.

MR. T. HARRINGTON: – personal capacity, the one-on-one counterpart, no.

MR. SIMMONS: Now, you've mentioned Mr. Kandaswamy –

MR. T. HARRINGTON: Yes.

MR. SIMMONS: – who is the Nalcor area – I think area manager for package 0031.

MR. T. HARRINGTON: Package lead, yes.

MR. SIMMONS: Package lead – I can never keep all the titles straight 'cause there's so many of them. Would – and as things have – as things work out, is it Mr. Kandaswamy who is kind of your counterpart and your primary point of contact when things have to be dealt with at your project management level with someone over in the Nalcor organization?

MR. T. HARRINGTON: Usually it would be Kumar who I would call, yes.

MR. SIMMONS: Right, and so that would be Kumar. Okay.

And as you've said, he is based in St. John's.

MR. T. HARRINGTON: Based in St. John's.

MR. SIMMONS: Mr. O'Brien, who is the project manager, would you understand that his responsibilities include all the work packages for the Muskrat Falls site?

MR. T. HARRINGTON: He is the overall project manager for Muskrat Falls, yes.

MR. SIMMONS: Right, right.

So – and do you have any idea how many work packages there are, or how many other things there are that fall under his jurisdiction compared to yours, say.

MR. T. HARRINGTON: I can't talk to it specifically but there's –

MR. SIMMONS: Yeah.

MR. T. HARRINGTON: – yes, there's multiple packages involved –

MR. SIMMONS: Mm-hmm.

MR. T. HARRINGTON: – with the work site, yes.

MR. SIMMONS: Right, yeah.

Would it be fair to say that Mr. O'Brien's position is probably more equivalent to those of your sponsors, Mr. Henley and Mr. Buckle, in your organization?

MR. T. HARRINGTON: I would – again, it's – I can't speak to all of his roles and responsibilities.

MR. SIMMONS: Right.

MR. T. HARRINGTON: In my experience, though, he would be more operating at a – at that type of – it appears that he's operating at that type of level, yes.

MR. SIMMONS: So, from your observations, more like the role that your sponsors play is the role that Mr. O'Brien plays.

MR. T. HARRINGTON: It appears so.

MR. SIMMONS: Yeah, okay, thank you.

Now, at the Muskrat Falls site there is a Nalcor team at the site, as well as the people who work at Torbay Road here in St. John's, correct? So, I just want to run through a few of those positions.

You'd be familiar that there is a construction manager on site.

MR. T. HARRINGTON: Yes.

MR. SIMMONS: Yeah, and that's Mr. Reid, I believe.

MR. T. HARRINGTON: Jeff Reid.

MR. SIMMONS: Right, and is Mr. Reid full time at –

MR. T. HARRINGTON: He is full time, yes.

MR. SIMMONS: – the site? Yeah.

And there's an area manager for mechanical and electrical on site, and that's Mr. Knox, Mr. Bill Knox, I think.

MR. T. HARRINGTON: Bill Knox, yes.

MR. SIMMONS: You're familiar with him.

MR. T. HARRINGTON: I am, yes.

MR. SIMMONS: He's full time on site.

MR. T. HARRINGTON: Yes.

MR. SIMMONS: He's a resource available to you when you need to have communication.

MR. T. HARRINGTON: Oh yes, I've – I deal with Bill fairly often, yes.

MR. SIMMONS: You deal with him quite a bit.

MR. T. HARRINGTON: Sure.

MR. SIMMONS: And, as well, there's actually – while Mr. Kandaswamy is the package lead or area manager for your contract, there is a deputy area manager at – who's permanent at – full time at site, right?

MR. T. HARRINGTON: Mm-hmm.

MR. SIMMONS: Yeah, and that's Mr. Morrissey?

MR. T. HARRINGTON: Yes.

MR. SIMMONS: Yes? Okay.

And as well at site for the balance of plant contract, 0031, there is – I understand there is a contract manager on site and there's also a contract administrator on site.

MR. T. HARRINGTON: Yes, there is a dual – yes, there's a back to back for contract signings on site.

MR. SIMMONS: Right, right.

So these are all people who are present on the site who are those that you and your staff interact with, I guess, on a fairly regular basis, are they?

MR. T. HARRINGTON: Yes.

MR. SIMMONS: Okay, good.

And, as well, I think – I understand there are field engineers, as well, who are there on site also.

MR. T. HARRINGTON: Yes, there's –

MR. SIMMONS: Yeah.

MR. T. HARRINGTON: – package engineers that we tend to deal with on –

MR. SIMMONS: Package engineers, okay.

Now, you mentioned that there were some meetings that take place but, first of all, I want to ask you about the steering committee. Because you were asked a couple of questions about steering committees and we understand there is a joint venture steering committee which is internal to Cahill-Ganotec.

MR. T. HARRINGTON: Correct.

MR. SIMMONS: Correct.

Now there's another steering committee that got mentioned, and that I understand is a steering committee that has participation of members from the Cahill-Ganotec group and from Nalcor, is that correct?

MR. T. HARRINGTON: Yes, yeah. I tend to look at it two separate entities but yes there is a – if you can look at our overall umbrella it would be a joint steering committee, that oversight of the entire project.

MR. SIMMONS: Okay, so do you participate in the meetings of the joint steering committee?

MR. T. HARRINGTON: I have participated in a couple but not usually. No, it's usually held within just that group.

MR. SIMMONS: Who are the participants, and – who are the members on that joint steering committee?

MR. T. HARRINGTON: Well I mentioned the four on the Cahill-Ganotec side, do you want me to repeat them or –

MR. SIMMONS: Well, no – so there's the four on the Cahill-Ganotec side – who are the Nalcor members on that committee?

MR. T. HARRINGTON: Gilbert Bennett is usually in attendance there, Scott O'Brien, Ron Power, Paul Adams usually participates –

MR. SIMMONS: Yes.

MR. T. HARRINGTON: – I'm trying to think if there's anybody else. And that's usually the core group that usually get together.

MR. SIMMONS: Right. And I understand that steering committee has monthly meetings?

MR. T. HARRINGTON: They try, I don't think they've been all that successful in having it monthly but they try to regularly meet, yeah.

MR. SIMMONS: Right. And do you understand that they try to alternate between meeting in St. John's and actually meeting on site?

MR. T. HARRINGTON: That they endeavour to do so, yes.

MR. SIMMONS: Okay, all right.

Now, on site, is there a daily meeting of some sort that happens that involves both your staff and Nalcor staff?

MR. T. HARRINGTON: It's – well there's a sim-ops meeting, which is a regular coordination meeting. Now that's with all contractors really –

MR. SIMMONS: Yes.

MR. T. HARRINGTON: – construction folk, focused coordination meeting yeah.

MR. SIMMONS: Yes, okay. So –

MR. T. HARRINGTON: So it doesn't deal with the specifics in individual packages; it's more about, okay well how is the operation – real estate within the powerhouse, who's gonna have a crane in the building today, that, you know, we have a large piece of equipment that's being delivered tomorrow – you know, heads-up on the day-to-day function (inaudible) contractors.

MR. SIMMONS: So this is daily, what time of day is this happening? Is there a set time?

MR. T. HARRINGTON: It's around 4 o'clock.

MR. SIMMONS: Around 4 o'clock and who runs it? Who runs the meeting?

MR. T. HARRINGTON: It's usually run by the construction management – site management, yeah.

MR. SIMMONS: So that would be the Nalcor construction manager who is full-time on site, would run the daily meeting.

MR. T. HARRINGTON: Yes, yeah.

MR. SIMMONS: And all contractors attend this meeting, do they?

MR. T. HARRINGTON: Yes.

MR. SIMMONS: So it's an opportunity to coordinate their activities for the next day.

MR. T. HARRINGTON: Yes.

MR. SIMMONS: Okay, good.

Now I understand there's a regular weekly meeting just for your package between probably yourself and Mr. Kandaswamy who I think participates by telephone, generally and others.

MR. T. HARRINGTON: The package meeting or the weekly construction package?

MR. SIMMONS: Let's talk about the package meeting, 'cause there's two of them, right?

MR. T. HARRINGTON: Right, yes.

MR. SIMMONS: Yeah.

MR. T. HARRINGTON: The package is purely – it's more a commercial-focused.

MR. SIMMONS: Okay.

MR. T. HARRINGTON: But usually just tends to be myself, my deputy Brad Bursey –

MR. SIMMONS: Yeah.

MR. T. HARRINGTON: –and the contract administrators on site.

MR. SIMMONS: Yeah. And the contract administrators on site, and that's to discuss commercial issues, that happens every week?

MR. T. HARRINGTON: Happens every week, yeah.

MR. SIMMONS: Yeah.

And what's the other weekly meeting?

MR. T. HARRINGTON: I guess, in terms of our package focus. And there's other several small meetings, you know, quality meeting, engineering meeting, but –

MR. SIMMONS: Mm-hmm.

MR. T. HARRINGTON: – the largest – the larger audience would be at the weekly construction meeting.

MR. SIMMONS: Okay. And that's, that happens at site.

MR. T. HARRINGTON: Happens at site, yes.

MR. SIMMONS: Who runs that and what's the purpose of that meeting?

MR. T. HARRINGTON: It's generally run from St. John's office.

MR. SIMMONS: Mm-hmm.

MR. T. HARRINGTON: They'll have a group that will call in.

MR. SIMMONS: Mm-hmm.

MR. T. HARRINGTON: But anyone that's – typically the main lead players for – I'll have all my group leads there, so we discuss procurement, quality, engineering. So –

MR. SIMMONS: Mm-hmm.

MR. T. HARRINGTON: – all representatives from my team in key – in those key positions – construction, coordination, planning. And just, you know, our main points of contact from the Nalcor side will attend that meeting or the guys from St. John's will call in and that's (inaudible).

MR. SIMMONS: Right, okay. So those Nalcor people that you interact with on site will be at the meeting and others who are in St. John's will be on the –

MR. T. HARRINGTON: They'll call –

MR. SIMMONS: – on the phone.

MR. T. HARRINGTON: – in. Yeah.

MR. SIMMONS: Okay, and that happens every week.

Is that the Sunday meeting? Is that happen on Sundays?

MR. T. HARRINGTON: No.

MR. SIMMONS: That's a different meeting, that's the production planning meeting then, happens on –

MR. T. HARRINGTON: Right. We do a –

MR. SIMMONS: – Sundays. Is this it?

MR. T. HARRINGTON: – we do a – basically, essentially a three-week look-ahead review with the –

MR. SIMMONS: Yes.

MR. T. HARRINGTON: – client every Sunday. So we –

MR. SIMMONS: Yes.

MR. T. HARRINGTON: – we're obligated to submit a three-week look-ahead every week, which we do, you know, either Saturday or Sunday.

MR. SIMMONS: Mm-hmm.

MR. T. HARRINGTON: And that'll give us an outlook on how our schedule is looking for the upcoming week, what activities we're going be working on and challenges we have. And then we'll meet with – you know, maybe one or two of the site Nalcor personnel will attend that meeting on the Sunday.

MR. SIMMONS: Okay.

And, as well, I think there's a weekly labour productivity meeting –

MR. T. HARRINGTON: Yes.

MR. SIMMONS: – as well. So how – where does that – is it – and that one is on site, is it?

MR. T. HARRINGTON: That one's held on site.

MR. SIMMONS: Right.

So what's the purpose of that meeting, then?

MR. T. HARRINGTON: That one's more focused on, again, union, labour relations managers and also, there's a productivity component. So we'll always provide our weekly and our cumulative productivity performance numbers –

MR. SIMMONS: Mm-hmm.

MR. T. HARRINGTON: – for the project. So we'll go through each discipline, how we're

trending for the project, look at our performance from the previous week. We'll talk any – we'll talk labour relations issues in terms of union grievances, these kinds of things – more specifics along that. But it's more focused primarily on labour relations and just that productivity component on –

MR. SIMMONS: Yeah.

MR. T. HARRINGTON: – on workforce management, so.

MR. SIMMONS: Now, on the labour relations topic, you'd mentioned already this morning that two of the features of the project collective agreement – I just forget the exact name – that, I gather, you've been able to take advantage of, are name hires –

MR. T. HARRINGTON: Mm-hmm.

MR. SIMMONS: – and –

MR. T. HARRINGTON: Work teams.

MR. SIMMONS: – and work teams.

So can you tell me a little more about what name hires means? How that works?

MR. T. HARRINGTON: Right, so –

MR. SIMMONS: (Inaudible.)

MR. T. HARRINGTON: – provisions in the collective agreement allow us to name hire any of our key supervision.

MR. SIMMONS: Mm-hmm.

MR. T. HARRINGTON: So any time we're going to bring in a supervisor as a – established as a foreman or general foreman, we can go to the union and say: I'm calling, you know, such and such name. But also, the union provisions have us that requires – essentially, it's supposed to work out to be a 50/50 split, so company gives us – the company opportunities to hire 50 per cent of our workforce through name hire so we can select them from the union pool –

MR. SIMMONS: Mm-hmm.

MR. T. HARRINGTON: – or – and then the union also has the opportunity to select the other 50 per cent. So that’s generally how it’s structured.

MR. SIMMONS: Okay.

MR. T. HARRINGTON: So we have opportunity to, again, hire our key supervisors who we –

MR. SIMMONS: Mmm.

MR. T. HARRINGTON: – we see fit. And then also, their union has the opportunity to make sure that, you know, people might be on the list for a while, they’ve been out of work, they get their opportunity to go to work.

MR. SIMMONS: So on other projects or sites you’ve been involved in that – have there been others that did not have this name-hire provision available to you where you had less control over who you were going to select for your supervisors?

MR. T. HARRINGTON: Usually, they’ll have a – (inaudible) like this, will have some name-hire provisions within them.

MR. SIMMONS: And the teams you’ve told us about –

MR. T. HARRINGTON: Work teams.

MR. SIMMONS: – the work teams you’ve told us about. So these provisions in the collective agreement, are these something that Cahill-Ganotec had to negotiate with all the unions and arrange for yourself? Or was this something that was put in place as an umbrella provision that’s available to all of the contractors on the site?

MR. T. HARRINGTON: It’s an umbrella but it’s within a collective agreement, so –

MR. SIMMONS: Okay.

MR. T. HARRINGTON: – it was certainly encouraged upfront when we started that –

MR. SIMMONS: Mm-hmm.

MR. T. HARRINGTON: – to look for opportunities to utilize the work –

MR. SIMMONS: Right.

MR. T. HARRINGTON: – work –

MR. SIMMONS: Right.

MR. T. HARRINGTON: – work team provisions.

MR. SIMMONS: So those are available to the contractors. Ultimately, it’s up to the contractor to take advantage of it, though.

MR. T. HARRINGTON: Yes.

MR. SIMMONS: Yeah. Okay.

Thank you very much. I have no other questions.

MR. T. HARRINGTON: Okay.

THE COMMISSIONER: Thank you.

Concerned Citizens Coalition?

MR. BUDDEN: Good day, Mr. Harrington.

My name is Geoff Budden.

I’m the lawyer for the Concerned Citizens Coalition, which is a group of individuals who for a number of years have been critics of the Muskrat Falls Project. I just have a couple of questions for you today.

The first thing, from your evidence and from the supporting documents, it would appear that the experience of your company on this construction project has been a positive one –

MR. T. HARRINGTON: Mm-hmm.

MR. BUDDEN: – and you’re meeting your targets, things seem to be going well. And from your evidence it’s also obvious that you personally and your senior management team are on site, and are very involved on a very hands-on way with your workforce.

Would your project or do you think you – this would be as successful as it has been for your

company without that on-site involvement and participation by yourself and other members of your team?

MR. T. HARRINGTON: Certainly, as I mentioned earlier, I think it certainly have been – helped their success. Again, it's – it all comes down to – we were talking management styles. My management style tends to be more geared towards being hands-on and being engaged. I think communication's very, very important in terms of project success. So, having that face-to-face interaction with my management staff and the workforce and, as I mentioned, I think, if you build up a personal relationship with – 'cause the workforce, these are the people that are obviously gonna get the work done and –

MR. BUDDEN: Mm-hmm.

MR. T. HARRINGTON: – ensure that the quality is there. You can give that as much oversight as you want, but they have to be motivated to go to work and want to do a good job. So, like I mentioned earlier, I think people tend to work better if they know who they're working for. So I, you know, I think it's important to try to establish that relationship. That's just my style.

MR. BUDDEN: Sure. And you can't do that from a thousand kilometres away.

MR. T. HARRINGTON: It would be more challenging, yes.

MR. BUDDEN: Sure.

MR. T. HARRINGTON: Yeah.

MR. BUDDEN: You – in your interview, you – and this was covered fairly extensively in your interview and also in the questioning so far, so I won't do any kind of a dive into it, but I – you've talked about the relation between your company and Nalcor. And I realize that this must be somewhat awkward – you're right in the middle of this project.

But, however, I do have a question and it grows out of an answer you gave at page 49 of your interview. And I'll just read it to you; I know you don't have it in front of you. And you were asked – the general questioning, again, was

about the relationships that you were having with the senior management team of Nalcor and I'll just read you a little passage here.

This is you: I think in general, in terms of relationships and interaction, I think it's relatively positive, you know. We've had – I know where we have been one of the higher performers on the project, I think that they've certainly – very complimentary of that, they recognize that. We've had a good dialogue in terms of a commercial relationship, is still – is very constructive. We don't – it's not, you know, constructing – construction can be a tough business where you have to have a pretty thick skin. So, I mean, most of our interactions are – I have a good relationship with the package lead, Kumar Kandaswamy, you know, we usually – very open and honest with each other.

The other member of the – another name that was put to you was that of Mr. O'Brien.

MR. T. HARRINGTON: Hmm.

MR. BUDDEN: How would you characterize your relationship with Mr. O'Brien?

MR. T. HARRINGTON: I don't have an extensive relationship with Scott. Obviously, I know him to say hello, been in a few meetings with him, but I haven't spent a lot of time engaging with him directly, so. He's been fine to me, in terms of personally speaking. I, you know, I've never had any kind of run-ins or – as I mentioned, construction can be a tough business. There's a lot of, you know, emotions get involved, then a lot of money at stake. But, generally speaking, I don't have any negative words for how he's treated me. So –

MR. BUDDEN: Sure.

MR. T. HARRINGTON: – and again, I don't have that direct contact with him enough to really establish much of a, I guess, constructive feedback, so ...

MR. BUDDEN: Sure. The – we will hear from Mr. O'Brien but – so he'll have a chance to speak for himself, but we did hear from another individual a few days ago who spoke of him as being confrontational, talking over you in

meetings, those kind of things. And, of course, each person can only speak to their experience.

MR. T. HARRINGTON: Mm-hmm.

MR. BUDDEN: Has that been your experience with him, Mr. O'Brien?

MR. T. HARRINGTON: I haven't engaged enough with him and been at enough meetings that I've had that – come across that situation. Most of them – my – the meetings I've been in it's been – again, the dialogue's been very constructive and, again, that was my personal experience. But I don't deal with him on a day-to-day basis so it's really tough for me to say anything further on that to be honest with you.

MR. BUDDEN: Sure.

Thank you, Mr. Harrington.

MR. T. HARRINGTON: No problem.

MR. BUDDEN: Nothing further.

THE COMMISSIONER: Thank you.

Edmund Martin.

MR. SMITH: No questions, Mr. Chair.

THE COMMISSIONER: Kathy Dunderdale.

MR. HEWITT: No questions, Commissioner.

THE COMMISSIONER: Former Provincial Government Officials '03-'15.

MR. J. KING: No questions.

THE COMMISSIONER: Julia Mullaley.
Charles Bown.

MR. FITZGERALD: No questions.

THE COMMISSIONER: Robert Thompson.

MR. COFFEY: No questions.

THE COMMISSIONER: Consumer Advocate.

MR. PEDDIGREW: Good morning, Mr. Harrington.

I won't keep you up here long; I just have one question, really. Just be interested in your thoughts or your experience working in a northern climate, like Labrador, and some of the difficulties that it presents, if you could just speak to that for a moment, please?

MR. T. HARRINGTON: Well, I mean, it's a tough, tough place to operate out of, particularly, when you're – in terms of supply. When you're bringing in material there's a lot of considerations on delivery. We've had, you know, several situations where, obviously, you're waiting for material because it, you know, misses a ferry from the Island, that kind of thing. So you really got to be pretty strategic about knowing your travel plans and logistics approach to getting items in and out of site.

Generally speaking, though, I'd had found the site management pretty good in terms of how – for (inaudible), keeping the snow off the roads, this kind of thing. But when it comes to a productivity perspective and labour, we've been a little bit lucky that most of our work, as I mentioned earlier, is outfitting inside the powerhouse.

So since our work started, the powerhouse has generally been enclosed so, you know, it doesn't cause as much in terms of a productivity impact. When you have – if you make sure your material is at the work face and the work is planned up front, you know, we're not running into challenges in terms of how our workforce is performing based on the weather conditions –

MR. PEDDIGREW: Okay.

MR. T. HARRINGTON: –for the most part.

MR. PEDDIGREW: Doing it mostly indoors.

MR. T. HARRINGTON: Mostly indoors, yeah. We might find some challenges where – in terms of material storages because there's only a certain amount of warehousing on site, so we do have a material that we would, you know, put in the – like the lay downs. So you had to be a little bit extra – you have to have that foresight in terms of how you're going to manage your material lay downs and identifying that, okay, well, making sure the snow is cleared and you're – just so you're not going to run into situations

where you're looking for things that kind of thing. But, generally speaking, we've managed, we're used to doing work in northern climates in Northern Alberta, Northern Manitoba I mentioned to you earlier.

MR. PEDDIGREW: Right.

MR. T. HARRINGTON: So, yeah, it's not new for us.

MR. PEDDIGREW: Okay.

And so the – I guess the issues that might arise with lay downs and storing materials outdoors, I guess that's more difficult in winter, obviously, than – but – and some of the issues you talked about, would they be – would they exist all throughout the year in Labrador? Just because of the, I guess, the location, or are they, I guess, more profound during the wintertime?

MR. T. HARRINGTON: It's more profound during the wintertime. Now, it is a long winter. I mean, we're – usually winter kicks in around October up in Goose Bay, so then you're in the thick of it until – you know, into May really. So it's a long hard winter but for our particular scopes, we've had the benefit of most of it, it's done within the powerhouse.

We do have exterior works, but we can try to avoid those and position ourselves to be doing those during, you know, the spring and summer months or, you know, early fall so we don't run into this situations where climate is going to, you know, cause us potential delays or impacts and that kind of thing. We've been somewhat successful in that regard, so ...

MR. PEDDIGREW: Okay.

And just a last question. Just in terms of storing materials on site outdoors during the winter time, how – is there any extra work that goes into that? Like, how do you ensure things are not covered by snow or that they're not in an area that, you know, if the snow melts it might get wet. How do you (inaudible)?

MR. T. HARRINGTON: Well, you can map your lay downs is one thing. I mean, obviously you have to take, in terms of preservation, into account of what equipment you're using. We

have bulk materials and stuff like that. That's, you know, fine to be storing outdoors, whether it be, you know, cable, cable tray, pipe spools, this kind of thing that are not sensitive to temperatures or adverse weather conditions.

But, you know, obviously sophisticated panels and equipment, you know, we have to maintain those in heated areas. So whether that's going to be storing within the powerhouse in an area that's heated or, you know, in our warehouse or we have on site, so ...

MR. PEDDIGREW: Right.

Okay, thanks very much.

MR. T. HARRINGTON: Okay.

THE COMMISSIONER: Thank you.

Former Nalcor Board Members?

MS. G. BEST: No questions, Mr. Commissioner.

THE COMMISSIONER: Newfoundland and Labrador Building and Construction Trades Council?

MS. QUINLAN: No questions.

THE COMMISSIONER: Dwight Ball and Siobhan Coady is not present, I don't think.

ANDRITZ – oh, no, sorry.

So counsel for Mr. Harrington?

MR. FRENCH: No questions, Mr. Commissioner.

THE COMMISSIONER: No questions?

All right, redirect?

MS. O'BRIEN: No redirect.

THE COMMISSIONER: All right, Mr. Harrington, thank you very much for your time this morning.

I'm hearing lots of things about Muskrat Falls. I have to say it's a bit refreshing to hear

something that's positive. You guys seem to know what you're doing.

MR. T. HARRINGTON: I appreciate that.

THE COMMISSIONER: And I appreciate the time this morning.

MR. T. HARRINGTON: No problem.

THE COMMISSIONER: Thank you.

So we'll adjourn now. So I think we should talk about the plans for the rest of the week.

MS. O'BRIEN: Thank you.

Our next witness will be from Williams Engineering, Jim Gilliland. He's had to travel in so I won't be available to call him this afternoon – I won't be able to call him this afternoon, so our plan is to start with him tomorrow morning. I don't anticipate that he will be the full day.

And so the next witness on the schedule is Mr. Jim Meaney from Nalcor. So we may start Mr. Meaney tomorrow afternoon just to ensure that we get through the week on time.

THE COMMISSIONER: All right. All right, I think Mr. Meaney could be longer than a day but –

MS. O'BRIEN: Hmm.

THE COMMISSIONER: – that's my thoughts, so if we can get him on started tomorrow, I think that's not a bad idea.

MS. O'BRIEN: Okay.

THE COMMISSIONER: All right, so we're adjourned until tomorrow morning at 9:30.

MS. O'BRIEN: Thank you.

CLERK: All rise.

This Commission of Inquiry is concluded for the day.