

<b>MFI – Interview Summary</b>		
<b>Date:</b>	September 14, 2018	
<b>Location:</b>	Hotel North 2 – Boardroom – Happy Valley-Goose Bay, NL	
<b>Attendees:</b>	David Malamed (Interviewer) Steve Power (Interviewer) Laura Miller (Note taker)	Georges Bader (Interviewee) (Legal Counsel – Paul Burgess)

This document contains summary notes of the interview held with the above noted attendees. These summary notes are not intended to be an official transcript of the interview. These notes were based on the taped recording of the interview. These notes are for discussion purposes only and should be shared only with the interviewee and his/her legal counsel. The purpose of these notes is to determine if the interviewee believes any responses are factually incorrect based on the interviewee's recollection of the interview. Based on feedback from the interviewee revisions will be made if determined necessary.

Date of summary: September 14, 2018

Note: Bolded items represent questions asked by Grant Thornton LLP with the interviewee's response immediately following in point form. Where the response was provided by legal counsel it has been noted.

- **Start at 8:02am**
- **Tell me a bit about your role with Muskrat Falls?**
  - Joined job in July 2014
  - I was a Planning manager/Lead planner (July 2014 – Feb 2015)
  - Feb 2015 I took this role as deputy project manager
  - Don was my boss
  - Project management responsibilities from Feb 2015 to now
- **What happens when you get there, what do you see and what's going on?**
  - In 2014 in July we were setting up plant 6-7 months after the job started
  - Main batch and plant were near completion
  - Designs in process
  - Crushing activities advanced enough to start
  - Main challenge was to develop a baseline for the job
  - That was my first task
  - While I worked on that in Aug 20 or 29 maybe
  - Challenge was to get the first pour
  - Everyone was waiting for the first pour
  - Happened in August
  - We were almost there in July when I came here

- That's first impression
- **What was the original schedule for the pour?**
- Initially, I wasn't involved but from the documents I've seen, contractor or the bid was given spring 2013
- Supposed to mobilize in the summer
- Jan –Feb work would be ongoing in spillway and powerhouse
- For whatever reason contract wasn't signed until Nov 2013, almost 6-7 months after the price was given and after the initial schedule given
- When I got there Nobody knew when is you're extension of time to get that pour
- Once you mobilize in the winter Jan Feb
- You can call it mobilization but it's not mobilization
- 5-6 meters of snow
- You can't see where's the rock
- You can't set up your batching plant
- You can't crush your aggregates
- Let's say between November and January, you can't tell me it's too much delay
- If you don't mobilize me in July you've lost a year
- I got to the winter you have to set up a batch plant, you have to have your mixed designs
- Having the mixed designs in July being done
- I think it's not very off by reality
- If you mobilize in January to start setting up it would be march before you start crushing
- I don't think anyone would do any better
- Your stock pile is froze, how do you crush that
- It was a mess
- If you start in march
- Set up batching plant
- Set up your aggregates
- You need 60 days to get mixed design
- I think that the best that you could have done, nobody's perfect
- If you work hard and get 2-3 weeks on mix designed you can't get to march pour but I don't think anyone would be able to do this
- July when I came mixed designs were in final stage of approval
- August first pour
- Since then, we only got better
- **Because of the delay what did you and the team discuss in terms of delaying or projecting timeline of completion?**
- In July we were having mix design challenge and ice challenge
- Project was always divided into spillway and powerhouse

- Spillway was one thing
- The powerhouse having the ICS was the main pillar in our execution plan
- If you want to do winter work need ICS done
- The ICS in July was in progress
- It wasn't advancing as was the plant when we bid on the job
- You move in Jan Feb and can't see the rock profile, you can't do this survey
- Design for ICS was late
- Then you have to fabricate 2-3 thousand tons of steel in a couple of months
- Do your engineering behind
- Coming July ICS was the huge challenge everyone focusing on it
- Foundation of ICS and know it will take 3-4 months and will be middle of winter
- Project once you lose 8 months on schedule, always under the impression you have to maintain contract date
- Wasn't possible
- Just in the last 9 months 10 months we have to give you the last milestone
- Were in process of building the shelter
- We didn't know the dates
- We were always calling it time at large
- We need extension of time
- If you don't tell me the extension
- But you just tell me no just maintain the days maintain the days
- We doing the best we could to finish earlier
- But didn't have a new forecasted date until Dec 2016 when the completion agreement was done
- New target dates were given
- We needed those dates
- We were right on those date
- Prior to that schedule wise had to go to without a client to up to 9 or 10 submittals
- Separate workshops to try to see where are we going
- We're not the general contractor having all the scope
- Were Main civil contractor
- Civil scope
- Civil related to reform
- Structural building and architectural work related to it
- Had to finish for others to come
- Let's say turbine contractor, the hydro mechanical
- If we don't finish one unit Andritz cannot come do turbines we cannot performed the work
- Us and the client are helping

- Not our scope to put master schedule together for the job
- But we were part of several workshops with consultants brought by Nalcor
- Trying to plan what to work
- Initial schedule was gone
- 9 months, 10 months of initial delay
- Long exercise until Dec 2016 all said those are dates we can achieve
- Nalcor was re-planning the full job
- New date for other contractors came in
- If you look at the execution beyond 2016 is different from 2014
- In 2014 supposed to finish building completely and then get out of the way
- Then Andritz will access it
- Because the job has 14 15 months of delay, so Andritz has to go earlier
- We are still there and Andritz got access to unit 1
- Balance of plant on insight
- Overall execution plan changed
- This is what happened
- Now our plan and Nalcor plan is different since 2014
- Why, because it was an aggressive plan
- If you lose 8 months on it
- If you move from here to here you're still on the table
- If you move from here to here you're falling off the table
- **Initial plan start date was when?**
- For me when I look at big plan we were supposed to mobilize summer 2013
- **June?**
- June / July I didn't really study that portion
- Mid 2013
- Contract was signed Nov 29, 2013
- So here in Labrador you have to get batching plants have to recruit personnel and have to get man power
- And have to catch up with 7 months delay
- Imagine how super human you have to do all this in November
- **Who from Astaldi puts their hand up and says we have a 5-7 month delay between when we thought we were going to start and now, we need to roll this plan forward?**
- I wasn't here to tell but I imagine from what I was hearing
- When you go get a contract and commit to client you have to do whatever to achieve those dates
- They are challenging dates
- Always hoping to take the other scope RCC dam

- Bidding other portion of dam if we were awarded would provide a discount
- We said ok if we have an overall control
- May be able to advance those dates
- They are challenging dates
- We were always hoping to take the other scope
- Which id the RCC dam
- I would say this was the approach but I can't confirm this
- After 4 years on this job I can understand this was the approach. Contractor say maybe here I'll breakeven but I'll make money on other portion
- The schedule is aggressive
- Even whoever you ask the schedule was aggressive
- Everyone committed to do the best
- Company understood those dates critical
- **Dates were aggressive before the delay? If already aggressive schedule and then already 5-7 month delay, I would think somebody would say we were so close before with aggressiveness that there's no way we could make that time line, but I'm also hearing that Astaldi had no issue, even with that time lost, to still meet the agreed to time line?**
- I don't know if they really believed there was no issue but they were aware schedule was aggressive
- Was a billion dollar job
- Lots of uncertainty's
- If clients and contractors don't work together setting each other up for failure
- Have to rely on the client to make it smooth
- And the client will rely on the contractor to get as close as possible to the client objective
- Contractor will do whatever he can to get as close to clients object
- This was the
- Initial approach
- There was another job on the go as well RCC dam
- They were linked
- Target was to get full job and try to advance as much as you can those dates
- **Legal Counsel: – question are you conducting this and if there are documents or something else you'll ask us or we can provide it to you**
- **Paused for question**
- **We were discussing in terms of individuals who would know about this?**
- Honestly senior managers not here anymore at least I don't know them
- Project manager's I'm assuming they were involved
- I never even met them
- Didn't have the chance to see me
- Even in 2013 when I came here we had 2 other project manager and no longer work for Astaldi

- Vitolio I think or was there Ken something

- Vitolio I met before I left for a month

- **Maybe we can get their contact details**

- **Legal Counsel:** I can get their names not sure where they are, I'll give you what I can get

- Names and timeframes
- Exchanged with commission council
- Those individuals are no longer around but would likely be different than individuals around at initial contract stage
- Relevant for you but separate

- Rome contact one person now which is our director. We can ask and chase it down

- **I want to talk a little bit about the bid estimate. Are you familiar with the bid?**

- The price yes

- Not how they made the estimate

- **The total bid for hours was about 6.8 million hours indirect man hours was 3.7 million (over 50% hours) why would that be?**

- Depends on terminology what do you call indirect

- The first impression for everyone was indirect was without supervision

- Indirect means you have concrete was direct WIP

- To get concrete you need a crane, warehouse guys etc.

- Admin, yard personnel, clerk, payroll, etc. may think they are indirect but they are direct

- Classification of contract put them as indirect

- It's not the same

- If you look to the bid we got portion of snow maintenance/road. Had to have team for this they were indirect. If you look at contract they were indirect but they were

- You have got to go see the trades and see how their approaching it

- Staff portion no not 50%

- **I understand, some of the composition of indirect could also be defined as direct?**

- Absolutely

- I can't say they didn't care about it

- Everyone focusing on concrete as direct work

- **As the bid is prepared, I understand there is a productivity factor in terms of harsh weather other unknowns? What would be the productivity rate that Astaldi would use?**

- I can tell you actual 15-16 man hours per cubic meter as an average

- In the winter it can be probably 24, 25, 27 depending on pour types but in that range

- That's the winter work

- I think the bid was 6 man hours per cubic meter

- **So 16 is in ok weather and in harsh weather it goes up to 24?**

- If its ok weather it can be a bit below 16, 14, 15, 13

- 16 is average for all concrete poured
- If you asked me to bid at 6 I'm telling you no
- Bid was good, based on working in heated environment (ICS) I think few documents have been exchanged with team working with you. Labour force was major risk that Astaldi wanted to put in force measure
- I don't know why it was removed from the first measure
- 6 was based on heated environment and having man power to build job at 6 man hours
- Was it achievable?
- Maybe with different union agreement yes
- Not with current union agreement
- Can't really know how much productivity is until you live the agreement in the province
- I'm not saying agreement is bad or good but it can't let you work at 6
- absolutely
- With how many unions involved and collective agreement managed by everyone
- They won't lead to 6 man hours
- We have problem, and everyone has a problem securing contract with lump sum with this collective agreement for subcontractors
- **Right, they want hourly not just fixed**
- Yes
- If you look at the contractors having problems are the ones have lump sum
- Dam is not lump sum, its either unit rate or labour
- You don't hear lots of issues
- With lump sum you see disasters
- **The proposal was proposing 6 man hours per cubic meter, in good weather conditions?**
- In good weather and with the available labour and with a collective agreement that will support you
- Like having unions on your board
- Not requiring 10 people to do a job that rewires 4 people, the collective agreement pretty much
- For a job of 4 you have to put probably 7-8
- **When concrete begins to be poured you're saying to me that in the warmer months that 6 is changed to 16**
- Maybe at the beginning it was higher the 16 what the average
- You can simply go and look for productivity online you just put productivity analysis
- You may lose 40-50-60% efficiency in winter. Its online, It wasn't down for this job it was done for jobs in northern areas
- **Did Astaldi have experience in winter norther areas?**
- I'll have to check
- In Canada I'm don't think so,
- I'm assuming elsewhere

- Is it as aggressive as Canada I don't know
- **In the weather I understand, is where the man hours would increase –in the summer months why they would go from the projected man hours of 6 to 14 or 16**
  - The union agreement
  - The collective agreement
  - The cost of labour for us triples
  - The cost of material didn't triple
  - You can know what is higher
  - Maybe from 400 men to 500 or 600 on non-labour portion
  - But on labour portion from 500 million to 1.5 million
  - Automatically you know money is on the labour
  - This is where the money is
  - For a job that requires 4 you have to put 7-8
  - Example, agreement structured in this way. Union has an agreement in hand so they are doing what their supposed to do. If you have groups on site, it's a big site. Foreman cannot drive them to another place, they have to call another crew to drive them they have to wait a half an hour. Already paid 10 guys half an hour just to make sure that the team will do the work
  - Or you have to hire 100 teamsters, but the teamsters it's not like a job, they may be busy for two hours or doing nothing for the full day
  - So you can't afford having 100
  - Have certain amount but not flexibility of those guys here moving them, this is a loss of productivity
  - I'd you tell me can anyone budget for that, no
  - Do you expect unions to be a bit hard , yes
  - But you can't expect this everywhere
  - This is for one, you go to strip panels
  - Labourer's will fight for that, carpenters will fight for that
  - Need to come up with work team
  - 7 carpenters, 3 labourers
  - But do I really need those extra 3 labourers or do I really need those extra 3 carpenters
  - Not really
  - End up putting bigger crews because have to work with them
  - Tell me you've signed collective agreement yes, experience has to be managed by the FMEA
  - Group of Nalcor contractors to make agreement as efficient as possible to the project
  - My boss will talk more in this area because he's more involved with it, but I couldn't see enough support to help us
  - Having the collective agreement is really more efficient to the job
- **When the contract is signed the collective agreement/union piece is a bit fuzzy?**
  - Agreement was in place, but never expect to have as much challenges as we've encountered

- Or expect client to be on board for benefit of the project
- To spend just required man hours to finish the job
- To see efforts between the union contractors and client to rationalize or to give some reason
- Challenges of collective agreement
- **You arrive at muskrat 5 months into construction?**
  - Didn't have much construction, mobilization
- **5 months into project?**
  - Yes
- **First pour happens?**
  - August 9-12
- **At that point, august, sept, oct you're seeing how people are doing and results – it's pretty clear early where Astaldi budgeted 6 man hours actually 12 and here's the reasons why: we didn't know the union?**
  - No we know union agreement but we were expecting more smooth
- **Is that communicated to Nalcor?**
  - Well Nalcor since day 1 had access to every single document we had
  - Productivity reports we do every week, they were submitted
  - They had our Actual payroll
  - Doesn't take much to say you're spending this for 5 cubic metre
  - Had several productivity improvement meeting
  - But nobody could reduce from 16 to 6
  - The best you can do with this agreement is what you're seeing
  - Any contractor could come and maybe improve 1 hour but everyone would be performing similar
  - The team here will be the same team another contractor
  - If another contractor will be performing the job, I may be working for them, most of the teams here were working on Hydro powerhouses in Ontario
  - And probably 10-15 people here that I knew about came from there
  - Same hydro contractors will hire pretty much the same people
  - The same union agreement in 50-60% of the staff
  - The staff are from the province or they have previous experience in hydro powerhouses
  - This job to say now we have 5 ex patriots in two years
  - We used to have 2,400 employee between workers and staff
  - 10-15
  - Pretty much everyone's local either Newfoundland or Canadian
- **Astaldi sees pretty quickly, labour going to be double what they thought it was – does that not become a concern?**
  - Oh yes already reforested job

- 2016 to reach a new agreement you reforecasted the job, you explained to your client the changes, how much you think your forecast to complete will be
- Initial plan that we lost not able to start in winter 2014
- That didn't have a small impact, it had huge impact that's why you fall off table
- Lost 8 months of schedule for first pour
- Started August 2014
- Supposed to mobilize in summer 2013
- Having your set up ready
- January February start working on your shelters and on your pours
- 8 months of delay and they were already aggressive
- Now end up trying to accelerate your start
- Throwing people/adding more to job everyone will think was the solution
- Wasn't solution
- We had people on the job to do our best
- Instead of us and client re-plan the job without spending unnecessary money to figure it out
- Until Dec 2016 we didn't have revised dates
- I was planning for the earliest I could finish whether it was good for client or not
- I know it wasn't good but best we could do
- Dec 2016 workshop everyone gave reasonable achievable dates they are not easy dates but they are achievable
- Have to work to get them but achievable
- Took more overall constructability into account
- Having all the contractors at the same time
- 2016 was a bit more doable
- **2014 middle first concrete pour and then in 2016 reforecast?**
  - Yes, we did the forecast many times but client accepted in 2016 after challenging
- **How many versions went back and forth?**
  - Lots
  - Several of which
  - When Andritz will go
  - When we go
  - When Bernard will be performing certain sectors
  - Took 2 years of workshops
- **Took 2 years of workshops to revisit the schedule and recast the time?**
  - Yes
- **These sessions were Nalcor and Astaldi?**
  - Yes and independent consultants

- Who came here challenging our schedule, sequence, execution
- We came up with several suggestions
- How we can have other contractors working while we are to mitigate further delays to the job
- 2016 a plan was adopted by everyone
- **Would you say that by mid-2014, June or July, everyone aware schedule problem?**
  - Absolutely
  - ICS structure was supposed to be advanced enough to prepare for the winter work
  - July putting foundation on ICS
  - Steel still under fabrication
  - Very challenging when you've been asked to plan something in 2 months aggressively things may go wrong
  - Have to design ICS in a rush
  - Settle contract with sub-contractor
  - Have to build execution plan
  - The rock was really an issue because it delayed the designed
  - Bring contractor in because now have higher ICS have to do backfill inside powerhouse to put your crane in
  - Miss things when you rush a plan
  - Unless time and material but when you have lump sum
  - But we were acting in the summer of 2014 in good faith like putting whatever it takes to get this job moving
  - Really where I think everyone was inefficient
  - Just to say the study was inefficient
  - I think it's a bit unfair we trying to do whatever we can
  - How it should have been provided
  - Meetings at higher levels to probably resequencing should have happened
  - Happened at site level but it was more to push us
  - Typical pushing your contractors to execute something keep beating on them
- **ICS, the dome, had Astaldi built dome before?**
  - The dome It's not rocket science, it's a steel building
- **It's just big dome/tent that goes over your building area is that correct?**
  - Yes, but the execution plan was basically steel building that goes over
  - Steel building that's it
  - Basic work
  - We just did permanent building here, that steel building we have done
  - ICS less demanding because don't have to go permit and design criteria don't have to paint it its more simple
- **Is there tarp around it?**
  - Siding
- **Had Astaldi done that before?**

- Ill check, for me it's a regular warehouse
- I'm sure Astaldi built lots of those building I'm 100% confident
- They built power houses They built all kinds of major projects
- Building itself absolutely
- **How was ICS, who's idea was it?**
  - I wish I knew
  - I think several contractors had the ideas
  - I think other projects in Canada used ICS I heard of some
  - Maybe not as huge structure as planned but typical to use in winter
  - Later on we localized heating and boarding
  - You have to modify as you go
  - If ICS if we got the chance to finalize design in 2013 and to plan the work not in two months
  - Plan it in the 6, 7 months it takes to mobilize right to do it
  - The ICS would have been a great thing for winter productivity
  - The thing is we were rushing to do it after 7-8 months signing from where we were supposed to start
  - Like anything you rush it you will get killed
- **Especially rushing something that's already aggressive?**
  - Yes, not impossible but very challenging in the realm of error is big
- **The ICS – that was part of the contract or that was subsequent?**
  - Part of contract we had prices for that
  - Winter shelter I think it's called
- **In response to RFP, was the RFP asking for a winter solution, a dome, a cover? Or was it just Astaldi's idea?**
  - Good question, I don't know
  - I'll look for the answer
  - **Legal Counsel:** writing down was the dome Astaldi's idea
- **Was it asked for in the RFP, was it subsequently asked?**
  - Does it matter
- **Just interested, because I'm getting more of the story now that it's a crunch just trying to understand if its standard operating procedures to put up dome**
  - We put 1000 ton August September of steel,
  - Almost 1000 ton in 8 months
  - ICS was 2700 tons could have done in 2 months but for the building you have the time to design plan , proper mobilization, discussions with contractor to plan the job
  - Who's idea it was I don't think it matters its whether they had proper time to plan it
- **How was Nalcor notified that labour was going to be an issue in terms of?**
  - Once started having actual

- For fairness you can only start averaging man hours once you start pouring
- Started in April May spending on setting up the batching plant
- You're pretty much spending from the indirect portion that your saying 50% or whatever to do your site installation
- To set up your batching plant, your crusher, building your trailers, your warehouse, your maintenance
- Initially I think first 4-5 months nobody would know that man hours factors are not accurate until you start pouring
- Once you start pouring start seeing 6 makes sense 14 doesn't make sense or whatever
- **August 2014 is the first pour, and then if I go to the end of the year, by December**
  - I don't recall much about the factors I believe 17-18 as an average
  - I can check
  - After Dec 17 went into that range
  - First period is never the right period to look
  - Have learning factors you can't use it as an average
  - As you go you can get better
  - In December we know we were double or three times the productivity we bid for
- **How is it communicated?**
  - Weekly basis we do productivity report
  - Standard quantities, how much you're having the actual man hours per cubic meter
  - The percentage progress, any project control guy can look at it and say they are 6 they are 5 they are 4,
  - I think they had enough looking at our numbers that knew
- **Did Astaldi suggest mitigation plan?**
  - Of course
  - I mean well in Dec I just don't know but in the 7, 8th workshops we've done always coming with mitigation plan
  - Not for productivity but other mitigation
  - Some they are using now
  - Other contractors can start working while we progress other units
  - So we were kind of doing an overall schedule assistance
  - For the productive Dr. Ibbs – I think from Stanford or Berkley one of the two
  - **Legal Counsel:** reference JIC the incremental cost
  - He performed study in 2015 and I think it was in 2016 about our productivity and said they can improve but never get to 6. I think his number was 13-14 something. He has other studies on winter months on loss of efficiency
  - I think his report was provided to you
  - Another consultant came to check the indirect
  - The ratios are the same because everyone was 50% but that's not how we should look at it
  - Came and said I can see problem with indirect ratio but we never received that report

- That consultant mandate
- **Who was that consultant?**
  - I'll get the name
  - I had the business card
- **That was commissioned by?**
  - Nalcor
  - Purpose of it was to see if we have proper indirect ratio
  - Guy came to audit us and he looked at numbers and we ask him what do you think we want to improve, nobody wants to spend the money in the end but it's our money too
  - He said I can't see anything out of whack in the numbers
  - Never seen his report and we've never seen the gentleman
- **When was this?**
  - 2016 prior to settling completion agreement
- **What interaction does your team have with Nalcor management team?**
  - We have an organization chart
  - You have functional manager and functional manager, and the construction manager, engineering manager, safety manager
  - Each one of them deals with his counterpart on regular basis
  - Quality meetings
  - Go to those meetings, Don and I can't go to all of those meetings
  - If there are issues we help
  - Managers deal with their counter parts
  - Don't deal with project management of Nalcor, deal with their counterparts
  - The only contact normally is during a progress meeting
  - Only difference is with every Tuesday meeting with project management
  - I think those meetings are completely useless
  - I never get anything out of those meetings
  - Never any answer
  - Try to get project manager available
  - Never available
  - Because they don't want to make any decision on this job
  - They want to let things fix themselves at the expense of contractors
  - We go to the meeting
  - Meet commercial guys who cannot give you an answer on any change management, beyond me in St. Johns
  - St Johns not on the phone
  - Out of every week a progress meeting, 5-10% decision makers weren't there
  - For me they were a waste of time where I get beaten on productivity schedule

- When you say we've done extra work can we settle this
- That's beyond, in St. Johns and things drag
- We understand we're contractor and have deliver a job but can't beat contractor for 4 years
- **Can't get project manager?**
  - I can if I call but most meeting he's not there
  - If he was there it's to give an instruction
- **Who specifically?**
  - The project manager
  - On the side dealing with commercial manger and site manager has authority to sign 25,000 that's it field work order. To move materials is 25,000
  - Construction/site managers changed a lot
  - Construction manager now Jeffrey, they rotate before was peter, before that it was Ed
  - Site managers don't have easy job, I don't want to be in their shoes as well
  - Dealing with many contractors and don't have enough authority on site to make decision
  - With everything they have to go back to St. John's
  - Disconnected from the day to day activity and make decisions based on Nalcor numbers
  - How we can push this cost to contractor
  - While I maybe do something else
  - Maybe I'll take the 5,000 this time but I will save the project by two weeks delay
  - Sometimes this is how we need to make things
  - **Legal counsel:** I think what you might be seeing is the difficulty of conducting an interview of this time when on-going project. Needs to see trail of names, reluctance to name individuals but needs to look at trail to verify information. Sometimes name may be necessary. I understand your reluctance.
  - If your issuing a report next week I still have to deal with this management team for 2-3 months
  - Great individuals, don't get me wrong
  - Professional relationship
  - The trust is lost between the work relationship
  - Names are kind of obvious
  - If you google the names and you will find them
  - **Legal counsel:** but if he asks you a question I think it is to Astaldi and your benefit to. Trying to get through communication. The other side may say they know nothing about this.
- **Which project manager were you specially dealing with**
  - Scott Obrien since I came here
  - I'm not sure before
  - We have only when we have major thing is when we talk
  - Don't talk to him on weekly project meetings
  - If he's there I'll have 20 questions I want answers on

- He's never president
- You have the commercial managers and the site managers who authority is not that big, they are more messengers
- **Why was he not there?**
  - Well to be there you have to make decisions, not necessarily on this part
  - But to say when
  - Example – our contract is not like work 2 years, your gone and someone else is coming
  - You have integrated work/schedule
  - I would ask if you're the project manager, I'm working unit 3 your telling me Andritz is going to access in 2 weeks, if this is the case I'll do my best effort to get this
  - If they aren't coming in 2 weeks you know they are coming in 4 weeks, because you have this information, I don't have it
  - let me know so I don't spend unnecessary money
  - I would be asking those but every single day I might have 10 things to talk to counterpart about
  - Those types of things change, change order there are issues
  - Open ended items on this job site
  - Astaldi you have to do the dewatering
  - How can you bid open ended items
  - Dewatering of the side
  - Year I bit the job for one and a half years
  - To do the dewatering of the powerhouse of the spillway
  - Those things were no you got in the contract dewatering for full job
  - You want to have a reasonable thing
  - How can I still be maintaining better work areas
  - While if we spent 10,000 dollars to do it they can do it in 5,000 dollars it's in their area
  - Those types of decisions I was never able to have with them
  - Because pushing time and work against us, we had lump sum while others may have had cap on labour or target
  - We had margin of 7% I don't think anyone will work for 7%
  - Its 15-20%
  - So if you can push work on me to do it for 7% you are already saving the margin for 7%
  - We're trying to say we don't want extra works we have some major issues happened on the job and require both managers to solve
  - Engineering problems that could have been solved in different ways
  - Open ended items snow clearing, road maintenance
  - Moving form lay down 10 times
  - You go you sat installation in the downstream of the powerhouse
  - And you are expected, who budget for 10 different mobilization

- you go you sit in the power house
- then 2 months before someone else mobilizing till you have to go out of there
- can I have a bit of strategic planning of my work on the next 2 years
- Can I have integrated schedule to enlighten me a bit on who's doing the job when so I can plan infrastructure
- It was never the case
- If you look at correspondence we were never put into picture of when others coming in
- All these were things, if decision making was on the job they would tell you
- I would do this to the sub-contractor
- I would put them a bit in the know to plan their work efficiently
- We always lacked those answers
- **Was it brought to project management team or Nalcor in general that there was lack of attendance or need of attendance?**
  - Ill check correspondence but we always say project manager was not here, always couldn't attend
  - When I don't want to make a decision I just don't attend
  - **Legal counsel:** what correspondence do you want?
- **Any communication in terms of it would be really good to have the project manager here, we need to find a solution, is there an alternate that can be sent?**
- **Were there any other concerns with project management team and was there anybody else on it?**
  - Well I know that project manager is Scott but they all instruct us by the way
  - Only one entitled to give us instruction is project manager
  - You have civil managers, you have site managers, you have commercial managers, you have progress approval
  - Progress approval responsibility
  - Deal with different departments but at the end it goes to project manager
- **Once 2016 occurs re-negotiation of timeline, how have things been going?**
  - With modesty I tell you the best contract you may ever have
  - We accelerated others to cover delays
  - Delays in multiple areas, we've performed extra work that we were not supposed to perform
  - Just because contract says if you have a dispute you have to do the work and put the cost to the end
  - We've been doing this since 2016, the outstanding things keep accumulating
  - We've spent costs not supposed to spend just because we were instructed to do
  - And we've been doing all this otherwise how would the job reach this stage
  - How would you see Andritz working how would you see balance of plant
  - Pretty much we're done. 95% done
- **What changed before?**
  - Nothing, everyone came to the idea that those are the dates and we have to work together to get the job done
  - This is what really happened

- We got some supports on coordination making dates more achievable
- You sign a deal in 2016 its 2018 now a year and a half, almost two years and a couple of months
- The initial project was supposed to be 2 years
- 18 months of delay
- Everyone was a bit more realistic
- We'll have to work together to get the job done
- We have committed to dates and we've achieved them
- If we didn't do what we promised last winter Nalcor, there's a settlement agreement or 2018 settlement agreement
- That summarized part of the efforts we've done, or part of the efforts
- 20% of the efforts we've done
- I think you can just chance down some comments of Nalcor senior personnel we have been performing since 2016
- The question, if you ask can anybody do a better job? I'll tell you not that much, were just a contractor like anyone else. People on this job would have been working for another contractor and doing exact same job
- 4% or 3% would have been our mistake
- Nobody could have done any significant better job
- **We were told that Astaldi had difficulty bringing experience project management on site?**
  - Not only Astaldi
  - When you go to major project site, in Canada right now how many major projects do you have
  - You go to 10 different recruiting companies to find those guys, no
  - Astaldi had senior manager they do powerhouse everywhere
  - But in general those people are
  - not easy to find
  - I would say the same about Nalcor
  - Couldn't see the counter part
  - If they had more senior construction manager
  - Who from Nalcor did hydropower houses
  - They have a bigger problem than us finding the people I would say
- **Early on in the project I understand turnover of management for Astaldi and unfilled positions?**
  - Yes, we get project manager I think he got sick he had a heart surgery that's what I've heard I've never met him
  - When in this situation have to find someone
  - May have contributed a bit
  - But whoever would have been there I don't know what could change
  - Your 8 months late on the job, even if you have a construction manager
  - Since 2014 July construction management team we have been there, Don who is my boss is project manager join in 2015. Since then job is very stable turnover of personnel

- Nalcor had 3 site managers when you set up job, both teams they just build
- They send personnel
- They had turnover as well
- **I know we said project manager Scott Obrien – is he your main contact?**
  - Yes
  - He's the company representative
  - Does he make the decisions, I just don't know the structure there
  - If we have to deal with Nalcor we have to deal with Scott
- **What was the relationship like?**
  - I call him anytime, but I don't get answers
- **Does he speak to you when you call him?**
  - Yes, of course
  - He answers the phone but not the questions
  - Always open ended
  - As an example, rollway bay three, we did two bays, rollway has five bays
  - We have equipment's on site, we have material to order
  - Rebar, water stock, maybe a small deck, any other Crain
  - To perform the job
  - Until now sent couple letter are you giving us the rollway in November
  - Yes we will plan we will order but they will tell you probably in mid-October when already late
  - If you tell me October 15 to start the October 28
  - Well I don't have the materials
  - Have to expedite and fly materials
  - I understand he may not tell me its Nov 1 or 5, I'm not asking for that level of detail, just is it happening in November or not
  - So at least I order the material
  - Until now we did not order rollway material
  - All we have is just verbal, yeah it's happening this year but I can't just go order half million of material and equipment and you may change your time tomorrow
  - This is the situation
  - So I tried to get an answer
  - I cant
- **You need instructions?**
  - Yes, go and order your material
  - This is one example I can list 400 of these
  - Just being direct with us, we can reduce cost

- There's always hesitation giving answer always because if I give an answer they may come back to me with a claim
- Has to have a limit
- **Nalcor leadership, would you have access to the CEO?**
  - I attend quarterly meeting to do presentation when bosses are there just if they ask questions
  - Not for me to call CEO that's not my job
- **Were project management on site?**
  - Visits yes, since 2016 quarterly or 2-3 months we have CO meetings
  - Official visit to the site
  - Over last year I think we heard nothing but good stuff in the meetings about the performance
- **Who from Nalcor attends those meetings**
  - CEO
  - Senior managers
  - Directors – Paul Harrington
  - Gilbert – he comes so often for visit, every week
  - Lance Clark I think commercial director
  - Project managers – Scott and normally site manager
  - At that time I think peter was attending
  - Jeff I don't think we had decent meeting on site, last one was april/may
- **Prior to 2016 revision who was attending?**
  - Before 2016 we did not have regular meeting
  - I wasn't part of any of those meetings but I'm sure senior manager were attending
  - Either Franchesco or even Jack was dealing with the senior upper management for Nalcor
- **Was Paul Harrington there before 2016?**
  - I had no relationship with him
- **Gilbert?**
  - No I'm not sure, I wasn't part of before 2016
  - From 2016 those individuals I was aware they were involved
  - Prior to that maybe Scott Obrien and Ron Power
  - The personnel I see in the meetings
  - My manager would have met them I wasn't involved
- **Gilbert you said was there every week?**
  - Yes frequent visits
  - On the progress
- **Would that have been before 2016?**
  - I didn't know who he was before then 2016

- Maybe he was there but I didn't know who he was
- In 2016 I know who he is
- I see him now every week
- Do we discuss, no just hello were doing this tomorrow, this two days after
- Not my responsibility to settle with him financial things
- **At beginning SNC was EPCM and then later they switched to Nalcor's integrated project team – what was your experience with this team?**
  - There so disconnected
  - If you want something you have to go to 10 different people
  - One guy says he's reviewing it then the other is reviewing it
  - Blend of still SNC guys degraded to integrated to consultants
  - It's a bad experience I don't want to live again
  - Beaten from those guys enough
  - Most of the times I don't think they were Nalcor personnel they were consultants
  - Want to justify your work and only justify by picking on the things
  - While if Don and I want me doing this will our sub-contractors
  - There all suffer see something wrong how can we help you to fix it
  - In the end we are damaging ourselves
  - Because we are the project from Astaldi's perspective
  - I can't hurt myself contract
  - If I have 40 consultants I'm not sure they will have the same belonging to Astaldi
  - And they will be treating the subs and that things
  - I think we're good with our subcontractors because of what we experienced from the team
  - Something I'm still trying to understand
  - They have SNC personnel with LCP if are waiting engineering claims against them
  - I don't see how there isn't conflict of interest here
  - Or obvious conflict of interest
  - If I have a problem with design or with a certain ECM engineering or a site instruction
  - Where they tell me it's a new scope tell them no it's a wrong design
  - If I have SNC guys checking it while Nalcor should check it
  - Either back charge SNC
  - For our client the engineer should be the same
  - He asked for design building the job
  - If they do something which is not that's equal
  - Have to either compensate in a way
  - Instead of pushing to us

- We see lots of the engineering pushed to us
- The real issue of the building claim 7-8 million building moves with temperature
- Put snow you will have water up, variation in temp building not yet commissioned
- Other contractors start working prior to having the full building complete
- So you have less legit building
- Its moving, design is probably 16mm tolerance
- If your account for the factors that's 40 Millimetres
- So we are telling the client
- There's something wrong variation is 40 the design is 16
- The approach in the beginning in April or May was that's your problem, you fix it, you spend whatever
- We're doing it
- We engaged some consultant and engaged consultant jointly this first draft shows were kind of right
- It's an engineering problem
- And we had the people waiting out problem really SNC guys
- Not to point at SNC
- But I'm just trying to see
- But it could have been any other design
- If I was waiting our claim to protect himself and whoever is civil manager is SNC guy
- If he's an SNC guy
- Changes for us to win argument is pretty much 0
- As contractor lots of design issues pushed on us and were still dealing with that claim
- It's a 7 million dollar claim
- Mix of personnel that's very bad experience with them honestly work related
- Personally they're perfect
- We go and, at work no
- **I'm understanding was it a good thing to make integrated team?**
  - Not sure, because sense of belonging to project is way less
  - Have to justify your work at expense of contractor may be hurting the full project
  - I was always under this impression
  - Doesn't make sense to shut down job for 5 days for someone to prove something
  - I wouldn't shut down my work for a week
  - Or shut down my contractor for spending money for nothing
  - I'll help him right away to figure out solution to keep going
  - We had the draft incident
  - 3-4 months working on getting a path forward while if you ask me how I can solve it we take
  - We should send an excavator, recover all the material

- At the end this is what happened after 4 months this is what happened, excavator took all material out
- We could have done this the first week and saved 30-40 million three months of delay on this job, but needed someone to make that decision
- We stopped the structure for 18 days because some fire proofing paint eliminated
- We did it wrong
- It happens
- Your dealing with suppliers they send you something
- We stopped it until we found a path forward
- Our suggestion was it's our problem we will fix it for you but no point to shut down for 18 days, were paying for the crane we are paying for the crews
- If we demote them may not get same personnel
- And for us we have a sub-contractor we are paying his indirect
- We can keep working
- In any case this problem not going anywhere
- We can still put the steel and fix it in place and enclose the building and try to advance the work
- For 18 days if not more
- We found that no we have to change the paint supplier because its fabricated off site
- Could have installed those pieces and made value of personnel on site
- Could have made profit
- Till now I don't understand how you can shut down someone 18 days or 3 months or 4 months
- Those decisions for me I cannot understand them
- **Who made that decision?**
  - Well, you can be thinking those decisions made by individual on site
  - This decision Will go to the top
  - But the top can't be expert in everything
  - Has to rely on
- **Who communicated that decision?**
  - The quality personnel's
  - The Nalcor engaged
  - I'm assuming engineering team
  - If you look at them, each one from a different company from different consultant
  - If someone on my team did this I would fire him or tell Don to fire him
  - If he shut down the subcontract 17 days and made him waste all that money I just fire who made that decision
  - Everything became rocket science and at end you go back to point 0 where could have fixed that the first minute
- **ICS wasn't completed is that right?**
  - We did units 1 and 2, 3 and 4 no value

- Once you do the building you are already in the summer season
- **Was some of the cover used?**
  - Yes we had 50%-60% of building done
  - Dismantled it sometime 2016
  - We used it for almost a year (10 months)
  - May 2015 working inside and I believe dismantled winter 15-16, so a year after
- **Why was second half not put on?**
  - Said we were in Dec it would take us same pace in winter conditions when only work out your crane so much
  - Below 25 you won't have efficient work
  - It's always on like people on man baskets with Wind speed of minus 40 go down for break not able to be done in the winter
  - Building it in December you Won't finish other 2 until march, why you don't need, can advance 3-4 work in the summer
  - Value vs cost you would spend was not beneficial
- **Did incompleteness result in cost overruns?**
  - I think it was a mitigation for not keep spending the money
  - Everyone realized
  - Were 8 months behind
  - We started with assumption
  - We were late to start our initial plan
  - Initial plan had to be adjusted
  - 2014 winter plan for 2015 told client not doing 3 and 4
  - We took that decision at the end
- **By not doing it and then compensating?**
  - Compensating for what?
- **Plan was to do 3 and 4 when warmed up vs over the winter?**
  - Yeah we said its either doing it the summer or depending on our summer progress
  - If we see that we are high enough on the concrete or its advanced enough
  - That the justification of spending money for 3-4 doesn't give the return
  - This is what happened
  - In the summer we kind of advanced stage 3 and 4 into a certain stage that ICS you wouldn't need it any more
- **Could that result in schedule delays?**
  - Not really we always had room for 3 and 4
  - Yeah because late 8 months
  - Each unit had 2 month gap
  - Focus on 1 and 2
  - In summer hit hard unit 3 and 4 as well

- Already will get them at same level
- Had some buffers
- Winter 2016 we shut down those units in the winter and said we could still make that schedule
- We shut down 3 and 4 even for the winter
- Still maintain the gaps
- **We understand that including completion agreement, budget for work is approx. 1.83B?**
  - Yes that's the completion agreement
- **Is this still your best estimate?**
  - We have other claims because recently other delays from Andritz
  - Entitled for extension of time to 3 months
  - We recovered by accelerating unit 1 and 2
  - Supposed to finish full power house in Dec 2018
  - Extension of time allow us to go to April
  - We won't go up to April with the concrete work we can still finish in December with the concrete
  - But the finishing we may go to early 2020
  - We have an entitlement
- **That will increase 1.83B?**
  - Yes
- **Anything else to increase?**
  - Yes, extraordinary risks
  - That was an entitlement we have submitted as well
  - Completion agreement allows us to claim extraordinary risks
  - There is a process but there is a provision for it
- **How did this compare to other projects you've worked on?**
  - Like with an integrated team, other projects were a bit more smooth really that's for sure
  - I just see it wasn't the overall plan is still
  - I don't know after 4 years
  - It's a strange thing
  - Normally I know a-z what's going to happen
  - It's still a struggle for us
  - Daily meeting have to relocate trailers from the intake
  - I gave up on fighting for those
  - Still not done there
  - What do I do with the guys
  - Have to bus them all to north service bay
  - How do you justify this decision

- Yes it will have the other contractors set up
- But its damaging us
- We have some milestones that this area won't be there
- Could plan more efficiently
- Normally got more input in other places
- When there's a problem we will see more involvement from the client
- More involvement to help
- Here I see more work or problems pushed to us
- **Involvement with their independent engineer Nick Agrov?**
  - Never met him
  - Read report a few times but never met him
  - I think I never met him
- **You mentioned draft tube collapsed? What effect did that have on production?**
  - We had 3 months to shut down trying to clear things with OHS
  - Things could have been easier
  - Not proud of what you're doing a major job
  - Things may go wrong
  - I'm not saying couldn't have done a better job
  - Yes we could have but so could the client
  - If we had some problems they were verified
  - Responsibility remains on contractor who's building that
  - People looking at it as well
  - Easy to blame someone after the fact
  - Its preferred that you have something wrong before problem
  - 3-4 months of shut down trying to clear paper work
  - Could have been way faster absolutely
  - Could have been more simple
  - Could have worked on the clearance while we could advance some work
  - It was slow
  - Had to go through 19, 20 submittals
  - Multiple revisions
  - Recovery of damage or demolished draft tube
  - How to build a new one
  - Redesigning
  - It was hell
  - 3-4 months trying to recover

- In other jobs I think it would have taken 1-2 weeks and you would have a path forward
- **What do you think caused the project to exceed the budget?**
  - I can talk about our scope
  - You don't know other scopes
  - You come with a bid
  - Aggressive dates
  - With a small margin
  - That's fine that's our problem we accepted 7% which is unrealistic
  - Which is pretty much your financing cost
  - You face open ended items where for us would have taken advantage from us with the open ended services
  - You get the blockade where you have to demote 200-400 men in 2 days and then bringing them back 3 weeks after
  - While you have a huge indirect on site
  - despite
  - 4-5 blockade/strikes I think we had nothing to do with that
  - How do you budget for that
  - We got a draft tube indecent took 4 months to clear where we believe could have done in a couple weeks
  - Overall plan, maybe someone has it but we don't have it
  - I can't plan more efficiently the work
  - We have significant delays now with the TNG
  - We think the magnitude is 50-60 million
  - Risk on job engineering requirements
  - Like to sign you would need 5 different engineers with multiple third parties
  - Draft tube collapsed but we can have solid plan
  - Without spending 3-4 million on engineering afterwards
  - Collective agreement
  - I just think you can't renegotiate this agreement everyday its more complicated politically
  - But more serious efforts could have been done
  - Doesn't affect us alone effects whole project
  - How do you budget
  - Or how you even do your forecast with these conditions
  - How do you budget for blockade
  - I just don't know
  - You will have to change your site plan probably 400 times to accommodate others
  - You go to a sign ups meeting
  - You don't take priority because TG contract is a priority

- Take extra work you don't want to take
- If I have 2 here with 7%
- Or course I'll give you
- Your contract your forced to do extra work
- Margin is actual plus 7%
- With 7% and extra productivity were not making money
- Extra work for us means you're Losing money automatically
- Asked to do Some topics over 4 years I remember
- Rescue team
- After 4 years we manager to convince that's your entitlement
- Your duty
- To provide a rescue team for the multiple contractors on the job
- We're not the only contractor
- For 3 years pushed on us. Sent \$3 million to get rescue team we never budgeted for
- Your thinking were in a job, you have multiple contractors, you assume they would have a rescue team set up
- We spend the money then after they came up with the fact will give you a change order
- But who will cover the last 3 years this is another thing
- I can keep going
- Honestly, for 4 years I couldn't plan anything at home
- I come for weeks and stay for months
- Always things
- Always complicated
- Never simple
- Myself, my boss, All key managers it's never smooth
- Normally work doesn't have to be that complicated
- I think we gave our life for 4 years to come here
- If I go now I have 50-60 days banked days I'm entitled to
- Additional days aside from my vacation and all this
- If you ask do you want to stay here I say no
- But I have loyalty to the team
- We worked hard for 4 years
- Deserve tap on the back that we never got
- I was never called, hey I think you're doing a good job
- When the Client calls I think what did I do wrong now
- That's your budget
- I don't know what else we can do improve

- Lots of things went wrong
- **In perfect weather and perfect staff available, does Astaldi have a poor rate average from the past ever around 6 hours?**
  - I really don't have access to the corporate database I don't need it at this time
- **Is 6 hours?**
  - No, in Canada I can't achieve it
  - And if someone will say, no
  - You can't do it
  - This collective agreement with winter conditions can't do it
  - Tell me one contractor here
  - I think 4-5 contractors bid the job
  - I think I can't believe Nalcor didn't know that 6 man hours didn't make sense
  - If someone give me 6 man hours
  - I'll tell him review your bid again please
- **The litmus test would not make sense**
  - No
  - Probably doing somewhere else in the world maybe you can do at 6
  - I do 12 billion dollars power house, you can do them cheaper
  - In Canada with the collective agreement and somebody may say 16 is high, could have done 13 or 14 but not 6
  - I'll take 1 or 2 hours for my management skills
  - If I'm being compared to someone else I can't take from 6 to 13
  - Really I cant
  - It's not on me
- **Have you ever been asked to do something that made you feel uncomfortable?**
  - Nobody follows an instruction and is happy
  - Instruction won't make you happy
  - Do it because instructed
  - I've been instructed many times
  - Not uncomfortable, it's part of the work you have to deal with
  - But you would love to not have it
- **Anything ethically to you?**
  - No
- **Is there anything you thought we would discuss today that we haven't?**
  - You called me for today
  - I wish I wasn't part of all of this

- Talking about personnel and counterparts at the end its all work but prefer to be in job where you and client having a beer celebrating a milestone and not trying to justify these things
- I've been called for this meeting, I'm answering your questions
- What I'm saying
- This was my experience on this job
- For the company that hired me for 4 years I think they deserve to be defended because I don't think they contributed to this mess
- Nobody's perfect but for project budget I couldn't say they could have done way better
- Everyone can improve a bit
- From one billion to the price I can't say it's my companies problem
- **Is there anything else you would like to share**
  - No
- **Or think we should know?**
  - Related to?
- **Muskrat?**
  - Not really no
  - I think I described a few things that will give you enough information to write reality it's up to you
  - If you need more clarification let me know
- **If we need more clarification can we reach out?**
  - Yes
- **LC – can I ask some questions that might help**
  - Level of communication to see what written communication I can provide
  - I don't know what Nalcor's saying but let's assume their saying we weren't aware of any delay issues or cost issues for quite some time - what was the highest level of Nalcor or other persons role and earlier time you yourself would be saying to someone folks we have a problem?
    - Since 2014-2017 – I was part of workshops all of them. None of them I've seen that contract dates are achievable
  - Explain that the workshop who would be there
    - Nalcor organized it
    - Either closure or start of meetings have normal project managers or sometimes Ron Power was there or someone
  - Who would be highest Nalcor person
    - Quarterly meeting before 2016 project manager and general project manager of job
    - Construction manager
    - Civil managers
    - Engineering managers
  - There would be minutes of those meetings I assume?
    - Yes few correspondence where I listed the dates of those workshops

- Do you have those?
  - I'll get them for you
- **Like to have those from you**
  - Have log of when they occurred
- LC – gave one example of rescue plane can you give some of the other matters that you felt Astaldi performing that you didn't include in budget
  - Had to hire specific consultant
  - High angle rescue and rope rescue teams
  - Because can't progress until have new team
  - 2 years after team
  - The team union claimed it
  - Settlement happened but performing job for 2 years never thought its hours
  - I said ok let me absorb those 2 million or whatever I'll put in follow up dispute resolution
  - When you put something in dispute can't put something on every hundred you'll never finish
  - Have senior manager looking for dispute all the time
  - Recently last fall when Andritz and other contractors came to sites and not only player doesn't make sense at all can't be rescuing other contract guys
  - They said yes, one team who deal with rescue
  - They give us change order to cover last year up to now
  - Part of the rescue team but we are paid for that
- **LC – I think lot of those things in JIC document? Roads?**
  - Road maintenance was part of our contract
  - Not for 4 years
  - It was up to a certain date, with an extension of time
  - This became open ended
  - Dewatering
  - Those are part of JIC
  - Watering of the job
  - Always change dewatering system 400 times
  - We keep changing it
- **LC – I just wanted to clarify, your response about 6 man hours per cubic meter. Forget you're in Labrador forget you have the collective agreement. Is there a site you think you can achieve 6 man hours per cubic meters? Anywhere is that number achievable**
  - I didn't try to see without union agreements to see what you can get to
  - Maybe you can beat 13 a bit if you have no collective agreement and different weather conditions but to get 6 is very difficult
- **End 9:53**