

MFI – Interview Summary		
Date:	October 24, 2018	
Location:	Grant Thornton Office – 15 International Place, St. John's	
Attendees:	Scott Shaffer (Interviewer) Angie Brown (Interviewer) Laura Miller (Note taker)	Paul Harrington (Interviewee) Debbie Hutchings (Legal Counsel)

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: October 24, 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 9:45am October 24th**
- **We wanted to talk a little bit about your personal experience. Can you give us an overview of your experience specific to mega projects and highlight anything specific to hydro (if relevant)?**
 - First mega project would be 1977
 - Alpha project
 - Offshore oil
 - GBS with top sides production
 - I was part of the owners which was
- **Are you reading from something there?**
 - Yes
- **Can we have it?**
 - You've got it
 - Response to PTQ 1.4
- **We don't have Paul's**
 - *(Legal counsel) – that would be my error I didn't include Paul's*
 - I'll talk through it
 - Part of the management team
 - Concrete gravity based structure
 - From 1977 it was offshore hook up and commissioning

- First oil production start was Nov 1979
- My role was managing a team of project task force engineers
- Over 150-200 contractors
- My role was lead engineer for team
- From that project working for a gentlemen called Hank, my construction general manager
- Went on to next project which was statue b
- Concrete gravity base structure
- So from 1979 to 1982 it was onshore offshore
- Part of the onshore Mobil process management team
- I was lead engineer
- Manage a series of contractors for the commissioning of the facility
- My role was the lead engineer
- We had team of about 8-10 engineers there
- Workforce force 150-200
- Working for the same construction general manager again, Hank, on to statue C
- Another concrete GBS
- Got production in June 1985
- All of these mega projects are similar to Hibernia or Hebron
- Again I was doing the same thing
- Leading a team of Mobil task force engineers in the management team
- Offshore team onshore team
- Again, mega project experience. That took me from 1977 – 1985
- 1985-1987 another offshore facility GBS with top sides
- This is working for, again in Norway, for Norsk Hydro
- Responsible for overall planning and completion of the project
- Part of project completion planning group
- Managed multi discipline team of engineers, contractors
- At the home office, various sites in Norway
- Again mega project experience through all phases of the project
- I deputized for the Norsk Hydro project completion project group management
- When he was away I used to sit in management team meetings with senior management
- 1987 they asked me to come to Canada and get part of a project owner's management team on a magnesium project in Quebec
- Capacity of 40,000 tonnes per year I think when it was produced
- What I can recollect
- Part of project management team put together working between Norway and Canada

- Because engineering was done in Norway in so called secret aspects of the magnesium production facility
- That was their proprietary information
- My role was to manage multidiscipline team and project cost for completion
- I even stayed on post project for year and a half
- 1991 asked to join Hibernia project
- GBS structure which had an ice wall, much heavier
- Left it in 1999
- Got production December 1997
- I was part of Mobil HIAS management development
- It was led by my old boss in Norway
- I was part of the project task force
- Who was responsible for engineering, procurement, etc.
- My role was initially in Montreal
- Multi discipline team
- I was also part of the modular fabrication bid award
- We (about 8-9 of us) went to visit these fabrication sites
- From Korea, Italy, Norway, Spain, Canada
- Then eventually awarded to Korea for two modules
- GBS built in Bull Arm here
- I actually was asked post project to lead the post project operations planning responsible for production planning
- To be able to take from project into operations
- Following that transition state my role changed. I lead the team that did the first business plans for Hibernia
- Reporting to the executive committee
- Providing them with first 2 years of their business plan
- First 2 years of horizon
- Post project into that phase I'm just explaining
- 1999-2001 I was asked again, Exxon Mobil project
- Offshore gas facilities in Halifax
- Part of project management team
- Responsible for start and transition phase of the project
- Because of some of the skills we developed on Hibernia
- We developed a number of processes, that one was very successful
- Got readiness process plan and managed transition from project construction into that steady phase
- Mega project onshore / offshore
- 2001-2003 on terra nova project for Petro Canada

- Again part of project management team
- Responsible for the transition
- Hibernia and Sable OR S.A.L
- Petro Canada were partners in Hibernia project
- They saw some of the benefits there and asked me to help them through that phase
- My role was to develop the readiness process for the owners team
- Plan and manage the transition
- Leaving the onshore site all the way through to the offshore site
- Again mega project
- Transition to steady state developments
- I was also asked to lead for Petro Canada and that delayed start of claim for over 100M dollars
- So the delayed start claim required to identify a triggering event
- Triggering event which would be an insurable event
- If not for that we would have achieved start-up date
- Developing a Bo force schedule
- Which was successful
- The initial offer was in the low 10s and we settled for over 100M
- Took me to 2003 – white rose project
- Petro Canada has interest in white rose project
- 2003-2006 part of very small project management team that Husky put together
- Responsible for the engineering management
- So it was also initially brought on to do a constructive delay and acceleration
- Constructive delay and acceleration claim which was settled and I moved into another role on that project team
- Company called Maersk
- Managing contractors which was Kiewitt that relationship didn't work out and we had to transition Maersk out put together an integrated team to manage the project there afterwards
- So Husky stepped up and moved Maersk out
- I was then moved out to the start of manager role
- Getting through from leaving the site in Korea going all the way through the hook up phase into final start-up phase
- Responsible for team of people onshore and offshore who were developing and implementing the procedures themselves
- We achieved that in 2005 very successful project
- It was in 2006 I think I was asked by Ed Martin the new CEO of NL hydro which later became Nalcor to join that project
- So again, part of a small team that was put together I was the project implementation manager that was my title at the time

- Implementation manager was to take NL Hydro into a position that they could contemplate taking on a mega project
- NL Hydro were basically an operation type of company, last project they've done was Granite Canal which was nowhere near mega project
- My role - develop the people processes and systems that you need to be able to even consider taking on mega project
- Initially we had to get team together and take on field investigation work, kick off environmental assessment process, work on aboriginal groups on the impact of benefits
- That again took 6 years to get to an agreement
- The first thing I did in that role was to look at what hydro had with regards to people, processes and systems
- They had some very good people but no processes or systems that would be suitable for mega project
- Planning, cost control, risks
- None of that existed
- First thing I did was get some good hydro people to join the team
- First thing I did was hire 4 people from NL Hydro division
- Engineering
- Managing with over 30 years' experience
- Kaushik who was engineering controls, 30 years' experience
- Bob Besaw, 30 years' experience with regards to turbine
- On the environmental side his name was Dave Haley, again 20 odd years or more probably 25
- Experience of environmental phase
- Didn't get the aboriginal thing sorted out you weren't going anywhere
- **When you brought those in were they external?**
- No brought them in from hydro
- Had to supplement those with people who had mega project experience and other experience
- That was when you bring in the costs the risks
- The Jason Kean, Lance Clarke, Ron Power,
- Those types of people
- What we had as a starting point was a feasibility studies that had been done in the 1980s by Hatch, SNC, Strait of Belle Isle maybe AMEC
- Needed to identify what we needed to do to take those feasibility studies into front end engineering phase
- Kind of DG2 estimate
- My role was to merge the hydro experience that was in the organization
- Then blend that with the mega project experience that we had in this province
- People had been doing all the Hibernia's, Terra Nova's, were used to how these things are structured now
- That's what we did
- So the team grew
- Developing a team

- You know that was one of the reasons why I think I was hired, the leadership I could bring
- The ability to build a management team, it's not easy
- Especially when dealing with people from two different worlds , hydro world and mega project world are very different
- Hydro you don't do them very often
- Last was Bay d'Espoir and Upper Churchill
- Many of those people aren't around anymore
- DG2 to DGE
- Keeping EPCM contractor on board
- Field implementation done
- Pushing environmental side of things
- Negotiation with aboriginal groups
- Working on the labour relations strategies
- Strategy development
- Training of aboriginal groups
- Making sure we were working with all of the educational facilities
- To identify our limits
- So you know we even established a website called muskratfallsjobs.com
- As part of mitigations that were established
- To say that there's 100% chance of not being able to get the labour that's not true, we did get the labour
- Actual uptake of the muskratfalls.com
- We got within a couple of months 5,000 people had registered on that, qualified people
- Now over 40K people registered on that
- Also established Canada wide program which was be part of something big
- **So Paul, labour shortage never any issue for skilled labour?**
 - No never
 - When you said that
- **I was just saying what Hollmann told me**
 - That's the problem with hearsay
 - We actually submitted binder to your colleague David
- **So labour shortage never an issue?**
 - No absolutely not
 - Following sanction decision - all of that work that we needed
 - We need a risk management plan
 - All of those thing were done
 - Readiness plan

- That's kind of the evolution of things I was talking about earlier
- Including decision gate process, I brought that process to Hydro
- Following sanction decision
- I'm 65 now, back then I was looking to go to something else but I was encouraged to stay past sanction
- My role changed to project director role
- I couldn't contemplate taking that on without an organization of highly qualified people reporting to me
- All of those people I felt that were extremely well qualified to be able to execute the project
- The team around me doing everything from this project
- You know this project is so broad, there's no one person that has that much experience from clearing reservoir expertise to high voltage technology, putting cable across Strait of Belle Isle
- Need people, functional expertise people that are qualified,
- Have experience from Forestry, civil, dams, Electrical mechanical, Strait of Belle Isle, Marine work, cabling, HVDC transmission
- That was the integrated team that we put together
- **What similarities do you see between GBS that you talked about and this project**
- Concrete and clearing the site
- And all of the things that come with that
- I mean did you hear Dr Flyvbjerg
- Mr Learmonth he said to Dr Flyvbjerg based on your experience, the skills and experience in the oil and gas sector can be transferred to a hydroelectric dam and transmission project
- Answer was - I would say yes, a lot of skills could be transferred. And it would be a huge advantage that if you worked on any mega project that you worked on another mega project before. I would say there also needs to be people on the team that have specific domain experience from the dams, if your building a dam that is
- One situation you have people who are building oil and gas and are now doing a dam
- Other situations, you have people who build oil and gas but also people on the team who have experience building dams, the first would be more risky
- And it works the other way around
- If you have hydro people who have never done another mega project that's going to be another risk
- **Very helpful, ok**
- And he wasn't an expert we brought on
- **I know.**
- **What difference do you see between GBS and dam**
- It's the oil and gas project right
- Difference is one thing, some are obvious
- **What are some of the differences**
- Well you need people on the team who have built dams before, cofferdams, power houses unique and transmission are unique
- So many similarities though, environmental assessments, cost, risk, the way you do them the process are identical

- Engineering may be different but the review and approve processes are the same
- Way you manage risk are identical
- A lot of the safety aspects on an oil and gas project
- They are recognized leaders in that aspect of it
- So you know there's a huge amount of functions the same
- Obviously unique things you bring people with expertise to your team
- **No secret, let's get your answer on this. One of the critiques on this is that the project management team didn't have the experience**
- That's just a wrong statement
- I did an analysis of it
- **Are you talking about the email that we got?**
- I don't know what email you got
- **I'm talking about the core project management team. Besides Ron. I want to get your response to that.**
- I refer to people who have the right basis to make such a critique. IPA for example came in and said we have highly functional team. MHI said we have best practice
- So people who don't have anything other than an excerpt of it can criticize till the cows come home
- **Pass email with hydro experience to them**
- The core group are people and myself would go to
- To ask about planning, ask about planning, engineering
- Put all those things together you have hundreds of years' experience
- So I don't think it's fair, I think it's misleading to believe that our integrated team wasn't up to the job
- **I don't believe or disbelieve, but what's the response**
- I think you need to look at that
- That says everything
- **You mean this, not the original**
- Yeah
- I didn't do it, HR did it
- Picked 181 people
- I gave to inquiry and they said no
- So I was told no, focus on the core group
- Myself and Gilbert decided what's a core group, I even left some functions out.
- I didn't include land, labour relations in there
- Those are the core functions that myself and Gilbert would go to
- I think it came to 50 odd people
- And 50 odd people had over one thousand five hundred years of experience
- **You consider this the core team?**
- Yes their my core team

- I think I have the prerogative
- Those are the people
- As I explained before no one person has the breadth
- **Ok I get it. You would have worked with Gilbert on this so he would consider it the core team as well?**
- Yes
- Absolutely
- Gilbert helped me put that together
- **So I guess to answer our question, I would disregard the analysis HR did?**
- The first one yes, they did both
- **Ok. I reviewed it and I had some questions on it but if you think it's not relevant I'll use the new one**
- Yeah stick with that one I'm comfortable with that one
- Hydro transmission people
- There's a lot there
- And you know okay I can get defensive about my team
- They're a good team
- They take an awful lot of criticism and I take my hat off to them for sticking
- **I do have a couple questions on this**
- I may not be able to answer I didn't do it
- **Are these all people currently working on the project?**
- I'm pretty sure it was 2012 / 2013 time frame when integrated team was together
- **Is it fair to say that some of the hydro experience listed here would be some experience gained on the project?**
- Yes, I'm on there, I was there 2006 and built up lot of experience working with hydro through those early days before sanction
- **Okay that's helpful because your name was one that I looked at. I just wanted to clarify what's listed here is specifically Hydro**
- Yes working in NL Hydro from 2006 digging out all feasibility studies, going out in the field, you gain experience
- **So this would be all experience your team had between 2012 & 2013?**
- As far as I know yes
- **So some of these people would be SNC?**
- SNC, Hatch, Nalcor, AMEC
- Nalcor staff, project people might be from agencies
- Or their own companies
- **I understand the background we just have some more specific questions after we reviewed documents. Just want to make sure I'm understanding chart correctly. (passed excerpt from recommendation for award) we just wanted to make sure understanding weightings and how you landed on Astaldi.**

- I may not be best person to answer but I'll do my best
- **It appears to us that the heavily weighted item would be commercial benefits. Given weighting of 70% when we look at summary, reason Astaldi got higher rating because they were lower price bidder.**
- I don't think they were, I won't argue
- **I think they were**
- **Based on these weightings, with price differential between bidders, it would be difficult to select anyone other than the lowest bidder unless there were other problems in their proposal. Is that a fair statement**
- I don't know whether its accurate or not
- **I assume commercial benefits means price – is that your understanding of that?**
- It's not just price, it appears to be securities such as letters of credits, those types of things
- 5% there
- So you know this is a – Ed Over SNC, Laird Peyton SNC, they led analysis, they identified weighted values
- **They chose weighted values, the percentages**
- Well SNC lead this
- **It wasn't discussed with Nalcor?**
- I don't know
- Look at contractor administrator Ron SNC
- Lead technical SNC
- This point in the project SNC were the EPCM contractor, we were overseeing but they were doing what they were supposed to be doing until we found out they weren't doing what they were supposed to be doing
- I don't know whether these values were reviewed/approved by anybody
- **This document is dated after SNC terminated as EPCM**
- They weren't terminated
- **Ok**
- When these things were put in place, this is the end of the process, going back in time
- That would be
- **You're saying these 4 categories, came from SNC and not anybody from Nalcor**
- I don't know for sure, but they would have come from SNC
- **Who would know for sure?**
- Pat Hussey perhaps
- **Debbie can we make that a to do**
- **Went off record**
- **Show Astaldi analysis provided by Nalcor late last week.**
- Who?
- **Doesn't come from specific person, we just get from Nalcor**
- So I don't know how accurate it is, if I don't know who developed

- **Let's make assumption its accurate**
 - Ok I'll do that
- **I wanted to understand how concrete pour related to labour that Astaldi was charging on project. Charts were all part of response. What Scott and I did was just some comparisons for concrete poured and concrete hours. I think it's no secret Astaldi got off to a bad start**
 - Right
- **We see consistently in first 18 months or so, the concrete labour hours they were charging Nalcor were exceeding concrete poured. July / August 2015 billed Nalcor 50% hours but only poured about 20% concrete. We changed to concrete hours only after Scott O'Brien's discussion. I know in main presentation there were a number of things you did to work with Astaldi on this. But why would you continue to pay Astaldi for hours even though they weren't achieving the production for the period**
 - Based on contract, it was based on hours, there was a cap
 - Target price
- **LMAX right?**
 - Ok yes you know that. You have to pay them for hours they spend
 - Alarm bells went off very early
 - The first meeting we had at senior level which is with their senior people in February 2014, 15th and 16th, meeting in Astaldi's offices Rome. Nalcor concerned on slow mobilization, project management situation, first pour delay
 - In initial time of any concrete pour contract, there's initial period when you don't expect to be pouring concrete, the ground clearing needs to be done
 - Ground preparation
 - First pour is critical
 - In February 2014 myself, Lance Clarke, Ron Power,
 - Met with Mr. Savey
 - CEO of Astaldi
- **Italy?**
 - Yes
 - Mr. Lanciani
 - Who was the senior project manager
 - Julia Hoffman
 - Risk manager
 - Manuel
 - Guy called Roberto Rosato
 - Manuel was Canadian Astaldi individual
 - My notes indicate that we were extremely concerned, schedule provided in contract not being met, 4 weeks behind already, crusher not ready
 - Operational health and safety issues
 - Spillway cover behind schedule 2-3 weeks

- First spill way pour scheduled for March now May
- Performance not improving
- Project management lacking
- Astaldi need to focus on safety planning readiness and production
- Nalcor will support but Astaldi must take the action
- So that's what we did on February 2014, in June 2014 we have another follow up meeting with Ed Martin myself, Lance Clarke, Ron Power
- 8th October another meeting
- Nalcor continuing concerns
- Current situations with Astaldi not able to meet deadlines
- Integrated cover system wasn't working, spillway process concerns
- Nalcor offer support and groups initiative
- I think we mentioned that
- **Can I interrupt – this is helpful but here's what we need to answer. No secret there's been a critique of Astaldi, perception that project management team didn't do anything about it. I'm not saying that's the case, I'm saying that's the perception. What we need to do, is answer that question. It's a question which I'd like to answer, if there's something that you can share with us or some other type of documentation**
- Yes that's it, the high level, my level, Gilbert, Ed Martin, Lance Clark
- I can give you this
- These meetings go on
- October 2014 November 2014
- **I don't doubt that you guys were meeting with them and trying to solve that problem. I need proof**
- If you make a copy, this is a summary of when meetings were held and highlights
- This is the meeting
- These weren't produced this week, these were produced 2 years ago
- All of high level which combined in the final acceptance of Astaldi
- To take on an organization structure that's applicable to Canada
- **Internally, as having discussions with Ed and Gilbert, was there ever a discussion back then about terminating the Astaldi contract to say we need to make change here**
- There was various people that said we should terminate them
- **What were the obstacles in doing that**
- Cost and schedule
- You have to work with – you know my experience – if contractors in trouble, first thing you do is try to help them, help them more, last thing you do is terminate
- Termination comes with an awful lot of legal ramifications
- Condition with Astaldi today is not clear
- You always have to try and make it work

- In honesty, we did make it work
- Then, we turned them around and the type of concrete placement average per year was that which was achievable. 2500m³, we achieved that and beat that
- **What changed to cause them to start doing that?**
 - They had revolving door of project management people
 - They brought people in initially, guy called can't remember his name
 - Guy from Quebec, huge amount of experience in construction for different companies
 - He was the guy who was going to bring all the superintendents
- **Did he have hydro experience**
 - Yes
 - Cold weather
 - Laird Peyton was the guy - strong advocate of him
 - Everyone was really impressed with Ken and his team that he would encourage to bring
 - These people follow leaders
 - As it turned out, he had medical problems
 - All expecting Ken and his team to appear and he didn't and we were told next week get this person, and it didn't happen
 - Eventually got guy from South America
 - He didn't cut it
 - He left
 - And by then our alarm bells continued to ring
 - Got individual who we could at least work with
 - Ron Power worked with that guy, went to site
- **This was 2015?**
 - Even I think earlier than that
 - October 2014 Nalcor offered support with working group initiatives
 - Ron was at site working with someone who could get something done
 - Started turning things around
 - Basically said that's it, either you're going to do this or we are going to think of something else
 - If my recollection is correct if Astaldi hasn't responded positively at that point in time, I think that would have taken it to the next step
 - Get to a point that if you're not getting any results
- **What drove the analysis at Nalcor weather or not they should terminate them**
 - I don't think analysis per say
- **There was a power point presented to board**
 - Was there?
- **You weren't aware?**

- Probably not, I don't attend board meetings
- Basically everything stopped
- Initiated change out of Bill Knox
- And another individual after that
- Roy Collier
- Bill and Roy were of the similar to Ken Chrysler
- Bill and Roy could then bring the type of organization structure daily meetings, pulling all of the rebar, planning meetings on daily basis
- People always want to work with leaders
- Brought on general foreman superintendents
- Basically was going to work in Canada on cold weather site
- That's when you see improvement in 2015 – 2016
- So that's as concise as I can be
- It was 2 branches right – high level make sure were watching this, but also at site there was the working groups initiatives that were set there. Desire to if you have planning meeting start to get better
- Eventually we got traction on that
- **Understood. If we could have a copy of that that would be a good starting point.**
- Yes.
- **Angie left to copy document**
- Scott O'Brien knew these things were going on but his head was trying to focus on site, we had to divide
- **Break requested. Back at 10:55pm**
- **Next thing is the schedule and how it would have been updated. I think it's well known the schedule was aggressive. Based on Paul Lemay's email from DG3 package**
- Sorry to interrupt – Paul Lemay identified achievable but aggressive
- Thought it was aggressive, not by amount to be poured per month, but he had concerns about ability for concrete batch plant to maintain production rather than the placement of concrete
- That was mitigated by a dual production batch plant. If one was down, the other could produce it.
- We actually didn't have that particular issue
- Point that Paul made was its achievable but aggressive because of the potential for batch plant not to be able to keep up
- But if we had a dual route in that plant it could and we did it
- Other side of coin is Lee Stanton that has tremendous experience worldwide on development of schedule, was brought on by SNC to develop 10,000 line production schedule
- That schedule was based upon 6 day working week rather than 7 day working week and 6 day working week was actual built into schedule and it was achievable based on our target dates, December 2017
- Fact of matter is, using a 6 day week when you actually work 7 day week you build in 8 month float on schedule
- Further analysis on schedule that was produced, I produced last week I think
- I sent it to yourself Debbie

- *(Legal Counsel) - ok*
- In that we go through Lee Stanton's work
- He's been on Lower Churchill Project since 1980s did feasibility studies
- He's planner, organizer
- Comes up with how many pours
- 3D model
- Shows how they would be poured
- His input was extremely powerful
- We knew aggressive in certain areas but also knew achievable
- I would direct your attention to recently produced analysis
- **Okay maybe we can note that as a take away if you could provide that analysis**
- *(Legal Counsel) – okay, that's analysis that you did?*
- Tanya Power did it for us
- Certain areas that were flagged and mitigated
- We didn't ignore commentary we were given
- **One more around schedule – I have been reviewing construction reports prepared for financing. I don't know if you've seen those**
- Yes I have, they're signed by Gilbert
- **Shows to Paul – Aug 2015, notes that schedule i.e. power house schedule under review. It stays that way until June 2016**
- All driven by Astaldi
- **Yes, I understand that. It's under review for 10 months and updated in July. Why would it have taken so long to update the schedule**
- Schedule – again I'm recollecting, I don't develop these.
- **During that period that's when we were negotiating a deal with Astaldi**
- So we began to schedule some Astaldi contract
- **Until such time that we negotiated settlement, which was the settlement of 50 million that was added on, they wouldn't tell you when it was going to be finished. You can't guess it. It has to be based on a contracted schedule**
- Under review means under development
- Under review because we don't have clear and believable schedule yet from the contractor
- Once you get Astaldi contract negotiation complete, then you would get schedule that was believable, and then you would add on next contractor down the line
- In order to give you date of power house ready for operations
- If you don't have the root (Astaldi) you can't honestly put a firm date down because your guessing
- **So it's accurate that it took a year to get these pieces in order?**
- Yes, very complex and integrated. Not just one finishing and other one starting

- **So you know the slippage that's going to happen obviously, but you couldn't commit on this document until you have signed contracts**
 - Exactly, because your guessing
 - Always revise our baseline. Best practice stick to baseline until you have something that could replace it with degree of accuracy
 - Took a long time
 - It was painful
- **Forecast Final Cost binder that we received. This full binder was response given from PMT. I understand that you prepared these or someone on your team did?**
 - Yes
- **Tab 9 – when I read this, I'm interpreting it to mean that these forecast final costs wouldn't include anything to do with schedule slippage**
 - Again it's a guess
 - You don't do that
 - You wait until you know what the impact of all of those are
 - Before you can actually put an accurate number to it
- **You knew the costs would be higher, you just couldn't quantify?**
 - Well if we just guessed a number, automatically, it becomes carved in stone. You wait until you're not guessing anymore you have firm evidence
- **Debbie, that's briefing chronological order**
 - I prepared that
- **Based on your experience on other projects is that how it would be done?**
 - As soon as you know. If your negotiating commercial deal, wait until ink dry before you go shouting from rooftops
 - Andritz would have immediate extension of time claim, want to be accurate
 - Andritz given original schedule which was assuming Astaldi done what they supposed to do and didn't waste 18 months
 - They would have been starting 18 months back, so Andritz just waiting there to say how big is our extension of time going to be
 - Don't want to go out and say this until you know it's that
- **Other mega projects, when you're communicating with executive, would you give them your guess or would you wait?**
 - You don't give guesses
 - If you do, won't last long in this industry
 - You're going to be wrong
- **So this approach is consistent and not unique to Nalcor?**
 - You just don't
- **Don't do that internally?**
 - How much more? How big is the claim?

- We might have an opinion, Andritz has opinion
- We have number they have another number, where do you think it ended up
- **Middle. Did Ed and Gilbert, did they know it was going to be extra costs**
- When was this? 2014
- They knew it was going to be more
- **Ok. Another question around this, this document tells me that executive knew budget was around \$7.5B, I mapped against chart Jason prepared on what went to board and what approved AFE was for, in June 2014 after this, was \$6.99B and not the full 7.5B. Why was that?**
- Says here AFE 1 was subsequently approved 6.99B. I'd have to go back I don't know off the top of my head
- I think some mitigations taken
- Does it explain here
- **Not really, I do see some mitigations but I don't really understand why what was communicated to the board would have been less**
- 7.5B based on certain assumptions, I'm assuming those assumptions may not have been accepted or changed
- I can check it
- **Sure, if you don't mind. I am not clear about this.**
- **Who would have brought AFE to board?**
- Jim Meaney, CFO would prepare AFE
- **Rob Hull?**
- No Derrick Sturge
- So I don't know off top of my head why that is but I'll have a try to find out
- **You might not be able to answer this off the top of your head either but – tab 5 – In March 2014 notes the budget was likely going to be 7.5B. But in this update it indicates in Aug. 2015 would have been when update was provided to government. Why was there such as delay communicating that to government**
- Aug 2015 from
- AFE 2 was then 7.65 so that one is right?
- I don't know why
- Outside my jurisdiction I'm afraid
- **Is it fair to say you would bring to attention of Ed and Gilbert?**
- That's what that attempted to demonstrate
- But may have been discussions whether formally approved
- Might have been election
- **So Ed and Gilbert would?**
- I don't know, Ed would normally meet with government. I don't know if Gil would be present. Maybe or maybe not
- I just don't know
- There is a mistake with that chart, it's a typo

- An important typo
- See that May – that should be March
- Outside of Ed's tenure
- *(Legal Counsel) - what chart is that*
- **I call it the red box chart, in presentation**
- If you look at the decks here you'll see that
- **There would be some kind of model or analysis where project team would be tracking forecast final cost?**
- Yes, monthly
- **In documents I've seen so far, I haven't seen that. Construction reports hold at AFE approved level. I don't know if there's some additional evidence you could provide around that?**
- I think the question - Tanya Power
- What would it look like
- That would be –
- Cost approval form
- It's an evolution, early on slightly different
- But monthly basis, these folks sit down and go through the budget contingency application
- Where budget was, where it was going, looking at risks
- This would be what based upon available contingency and looking at risks we've identified, what % chance of that happening
- It's not a QRA per say, but its ongoing kind of post check
- Because QRAs you only do them occasionally
- Monitoring risk
- Making sure risks not overpowering contingency
- At end of the day you would say
- Things understudy, things evolving, flag those and make sure contingencies available to handle that
- There would be schedule contingency making sure that yeah we don't schedule
- We are ahead of schedule, we don't tell anybody that
- I'm sure that's a joke to someone
- At end of the day, we also look at what was not covered
- Currently we are not covered to the tune of \$200M
- **How would I ask for those?**
- Ask Tanya Power
- **What would I call them**
- Monthly costs and schedule management review or whatever you want
- This is today, may have changed
- May not have been from day 1

- Many contractors not good at giving you data
- If you don't have the data you can't analyse that
- I think it's been asked, Tanya came to see me
- **I wouldn't have asked for that document, but it's possible that or other questions we asked they pulled this**
- When you sent agenda, project risk management
- That's it - you do QRAs occasionally but these are monthly checks
- **Next question on forecast, I just want to confirm that I'm interpreting this correctly. Looks like just looking at MFG, when I add to cost update to 10.1B I get 10.48B is that accurate?**
- If you include things excluded which are inquiry costs
- I think are in the region of a hundred and seventy million
- IEAC recommendations, independent expert advisory committee have recommended to government that you clear reservoir
- That extra money your talking about there is actually at the low end
- You cap with material box
- Against reservoir,
- Which box produced to some degree
- So that's at one end of the scale
- Also have full clearing of the reservoir.
- That's 1.5-2B risk
- So the policy of not including everything is still going on today
- It's a management decision
- I don't make that decision
- I'm just told here's P50 , or P75 now
- Work with that
- There will come a point in time that I can't, I'm out of money
- And I can't spend anything I don't have
- If those risks (they are risks) manifest themselves
- That government decide cap reservoir, or cap certain areas, that's going to delay first power date
- **I asked this to Scott yesterday, I've seen it both ways. Say you have mitigation plans in place to offset that risk exposure that you say okay contingency is 0 because we have mitigation plans in place. Or I've seen the other way where you leave in contingency but don't reduce until mitigation occurs. How was it done here? I think it's the former**
- Yes expecting mitigation to work
- **Have you seen it the other way too?**
- Yes I have Derek Owen, Exxon Mobil, that's his experience. He's coming from environment that's different from this environment
- He's not the CEO, he was at one time

- But he's not this CEO
- This CEO has his view on how to do things
- **Is that a CEO decision?**
- Yes Derek admitted it
- But management reserve I've heard the more experts you get, the more opinions you get. Flyvbjerg has one opinion P80
- P50 goes to me, project director, and p30 goes to contractor because you want to drive things down
- People like Derek Owen and ExxonMobil, they don't care
- They just don't care
- We care right
- What we did as a team, we follow the guideline AACE and project management book PMI. States management reserve is not on my budget
- **I understand all that. Just talking more about mitigation part. As I say, I've seen it both ways, you've seen it both ways. You did it this way, not you necessarily but Nalcor, that you have mitigation plans in place even though you haven't mitigated it yet, it's not in contingency?**
- Yes because it's management reserve, it might happen might not
- **Is that something Ed Martin, Gilbert Bennett or you would have decided?**
- We just follow AACE
- This how they stipulate it
- They just say management reserve is not part of the cost
- 3 things that drove management reserve 600M were weather windows, that goes back to riverside
- Cofferdam, diversion of river and pounds, those are the three weather related things
- Placement of concrete
- Only do it in certain temperatures
- Availability of labour
- Which we already knew
- Even though Mr Hollmann said 100% chance, nothing has 100% change and it didn't
- Third was production. All based upon Westney believing that you couldn't maintain 2500m3 of concrete per month on average. We just did it for the last 2 years
- And Astaldi and the other bidders said they could achieve that production rate
- And they were prepared to put 75M as liquidated damages if they didn't
- Why would we say okay you have another year
- **Let's talk about tactical risk. Take simple risk, RISK A, give you simple example and help me understand in terms of risk A has 100,000 exposure. However if we mitigation exposure is 0. We make decision at Nalcor, because we mitigate, were not including any. Include cost of mitigation but 0 because we plan on mitigating**
- My understanding of development of tactical risk, based on risk workshop in –
- **May 2012**
- Thank you

- I attended kick off of that but I didn't want to stay because senior person in those rooms could sometimes stifle discussion
- I didn't stay there, lots of good people
- People from SNC
- They went through the risk register
- Combined their view on risk
- Those risks and risk ranges were provided to Westney
- **Going back to my question on mitigation would those be included or not**
- Let me start again
- Risk A – there would be range of -100 or +200M. could be better
- Those are the numbers that were put into the model
- **I understand all that. If you lan to mitigate that risk, somewhere up the road and that 200 on the top side would go to 100 because going to mitigate part of that risk, what would be fed into Monte Carlo. Would you include plans to mitigate**
- I think they did mitigated and unmitigated
- I'm pretty sure
- Cost of mitigating
- **Ok so you have dollar exposure goes down, you use lower amount into Monte Carlo.**
- If it could be yes
- **If it couldn't you use higher range**
- Yes
- **You say you were there just the first day?**
- I think I was there at the kick off just to introduce
- **Ok was the first day just discussion and day 2 ranges?**
- Jason would have to answer
- **Do you know why SNC wasn't invited to the second day**
- I didn't know
- Do you know that
- **They weren't on sign in sheet, I can't say they weren't invited. They didn't participate I guess. Would that be a better question?**
- Jason would know that, I'm not going to guess
- I have a thought but I won't share it
- **Go ahead, share it**
- Could be SNC had certain responsibilities for part of the estimate and the owner has things like aboriginal financing, insurance, those types of things
- Not necessarily would you share with contractor
- You might get that vary far
- Sounds reasonable

- **I guess, since you didn't participant, can't answer this. Do you know if setting ranges would have been benchmarked against other projects**
 - Lots of benchmarking done
- **I mean specific to risk ranges**
 - It would be using knowledge and experience of SNC participants
 - Paul Lemay
 - And the risk manager at the time
 - He was very experienced, I can't remember his name
 - You know you're looking at that, Jason has a whole bunch of things he can fill you in on benchmarking
 - I'm not right person to give you fulsome answer
- **Here's what we're trying to figure out. Identify risk and then determine risk ranges. I'm guessing in collaboration is what I'm hearing**
 - Yes
- **How are ranges even determined?**
 - Its deterministic
 - Experience
 - Can't open book and say that's what it should be
 - Really relying upon
 - That's the whole process of all this
 - Using deterministic inputs to produce output
 - It's as good as the input that you put in
- **If inputs are not wrong, but let's say understated, result understated, similar the contingencies**
 - Yes, similarly if they were overstated
 - That's why John Hollmann was brought in to check the estimate. We all know what he said
 - It was good
 - My confidence came up
 - One of the best he's seen
 - He's got his views, we all do
 - But he was hired to do that specifically
 - MHI looked at it and thought it was good
 - They thought this is good
 - Consumer advocate said well done, they reviewed DG2
 - At my level, if I'm hearing positive things about estimate, I'm comparing that and challenging it, and I'm gaining level of confidences here
 - Can I ask do you have a feeling for how long this is going
 - I can try and push things out if it's an hour or so
 - **Paused for break**

- Return at 11:44am
- **I wanted to talk to you about best practice that your team followed. Already told us AACE guidelines, those documents you would have referred to. PMI books**
- Yes
- **I've reviewed some of the context of that. I've flagged a couple of things. Its refers to benchmarking specific to risk ranges and lessons learned from previous similar projects. Just want to understand what would have been done specific to this project around benchmarking and comparing the project to other hydro projects**
- Jason can give you more accurate answer but when it comes to cost and labour rates, big factor when it comes to estimate
- Where it should be
- I know that the labour rates that we went with were Hebron
- Not so much Long Harbour because it was coming to end
- And Western Canada
- To be able to be in right range we needed to make sure we were competitive, we had slightly better (again recollecting) rate than Hebron, and not so attractive as Western Canada
- But rationalized that in our own minds by saying labour from this province
- 15-18K people commuting to Western Canada
- Just needed to attract small percentage of those people
- Wanted to make sure our camp was attractive
- We went and studied different camps across Canada
- 2 parts – 1) quality – type of room, Jack and Jill type of shower arrangements, 2) cost per night per person
- Combination and those types of things can be very high
- Wanted to make sure in right bracket so we benchmarked against that
- I know that was done as well
- Benchmarking done and we provided that information to you, myself and Jason met with you and David in that little room and provided book on labour
- **I think you're referring to the July meeting**
- Yes
- **I wasn't in there but I know what you're referring to. David and Seth I think**
- We looked at powerhouses and dams built and production rates required for that
- To make sure own production rates in right ball park
- So his main one was certainly
- Paul Lemay's background and others we looked at as well
- Also meet with all electrical utilities
- It's called Canadian electrical project management network
- And what that is, is everyone, Hydro Quebec, MHI , BC hydro, everyone in-between
- All of their project managers including myself and Jason and lance and others to certain degree

- Would meet with them
- Most contemporary information we could find was Manitoba Hydro and most recent project
- Keeyask
- One before that as well
- Keeyask is ongoing and they were just finishing one as well
- We were talking to them about labour relations, concrete placement rates, risks they identified
- And we had dialog between them
- We got information
- In hydro world not a lot of projects going on, but we share information
- We would meet at least annually, sometimes twice a year
- Set up meetings where they would over here, we would visit their facilities
- From that you get real numbers
- **I was told that regarding concrete placement rates on m3/MH I was told that base estimate was done under normal conditions and 20% premium for location. Was it Lemay that determined the number of cubic meters / direct labour hours**
- Yes that's his experience
- **20% experience – Lemay?**
- Yes
- **Do you know why 20% vs 100%?**
- It's his experience
- That's what he's prepared to put his name to
- We relied on these folks
- **I just want to know who picked it**
- I'm pretty sure it was Paul Lemay
- **Really who picked it and what was the basis**
- His experience, I guess he would speak to his people
- It's an SNC number let's face it
- He would probably talk to some of his senior people within SNC
- **Let me tell you why I'm asking. I've heard that instead of 20% given harsh climate out there, it should have been factor of 2. Instead of 1.2 it should have been 2. I'm trying to understand that**
- Depends on who told you that. Other side of coin
- Integrated cover system was supposed to protect against that harsh weather situation
- However, 2500m average per month was basis for 3 years
- Amount of costs that comes from estimate
- How long should that take
- That's his job
- I've heard a lot of optimism bias

- There's such a thing as hindsight bias
- It's the I told you so
- It's so easy
- I can understand how people now days would say you should have done this
- At the time, that was the information we had
- I hear those things, it's very easy to say that stuff
- But if you hired what you believed to be company with best estimating and most contemporary experience and he tells you this, what do you do
- You believe information being prepared at the time
- Fine for someone to come now and say it should have been that
- Hindsight bias is so - again it's human nature
- Someone looking back saying oh you should have known that
- But didn't have any metric to be able to do that
- If you said it could turn out awful
- That's my view
- Hindsight bias is creeping in an awful lot
- Derek Owen said well do you think people at the time were suffering from optimism bias. No I don't think so but I as I look back probably yes
- That's hindsight bias
- Its natural reaction
- I'm not amazed by it
- From fairness perspective, commissioner has defined fairness as not applying hindsight
- We are slipping into that
- **Obvious were trying not to. If Lemay or someone else picked man hours, what was the basis for picking that number and the 20% premium as opposed to 100%**
 - Estimate is experience and supposedly he checked it with his superiors
 - It is important.
 - You've heard this and that
 - Project team wasn't experienced
 - All of that is hearsay
 - It's so easy for people to engineers and project managers
 - Who don't have to bear the responsibilities
 - It's so easy to throw rocks at us
- **Agreed. So for fairness - that's why we're asking these questions today to be fair**
 - I believe you're doing everything proper
 - Just think it's important for the record
 - I'm not pushing back on you Mr. Shaffer

- I'm just saying other people feel as though it's easy to say
- But I don't think it's fair
- **On the topic of productivity factor (1.2) how does that compare with productivity factors that would have been used in other mega projects you were involved in**
- I don't know
- Concrete mechanical
- Electrical
- It's all different
- Rely on your estimator
- How did those projects turn out
- How did Hebron turn out
- **That's what I'm asking**
- Hebron turned out a lot more than they estimated
- If you look at Flyvbjerg. Every hydro project except one goes over budget
- **Maybe that's better question for Jason. Circling back again for a second. You team would have reviewed PMI, AACE, are you familiar with Ed Merrow?**
- Yes, he's strong supporter of integrated teams
- **I understand he was the founder of IPA. I want to get your thoughts on page 327 – I'll give you time to read it. Commentary on Monte Carlo analysis**
- Yes this is the optimism bias that Flyvbjerg talking about
- Yes it's as they say you can ask many experts as much as you like
- He's a close associate with Westney
- That's why, he's opining on what Fryberg's talking about
- Natural thing of optimism bias
- It's not malicious, it's not intentional, it just is
- You might go what do you thing this area is
- Waste of time
- I don't know
- **We want to get your thoughts on it**
- What you have to try to avoid is exactly to what you're pointing to. If you ask Jason, I'm sure he was aware of Ed Merrow's work and he would try to avoid
- **How do we go about testing whether there was optimism bias in contingency ranges or not**
- All you can do is look at the consultant
- **Who set risk ranges**
- What I recollect it came from the team. They would check it for does this make sense
- Had other people within Westney
- Dick Westley didn't participate in this, he had people who did it

- Their type A personalities they won't plug in numbers that they knew are rubbish
- **Would there be other sources of best practice that your team would regularly refer to**
- We're audited, number 1 how they're prepared, is it best practice
- Audits being performed on many of our functions
- Be it procurement, risk practice
- If you haven't got the audit results that would be
- So I don't know
- They set the best practice
- **Nalcor's internal audit team support right?**
- Yes which is embedded in the team
- We've been regularly audited from compliance to development procedures and processes
- As far as I'm aware, always findings, natural. I'm not saying were to following deviating or non-conformance
- There good
- **Were they auditing the process as far as benchmarking?**
- Yes
- **That was their audit initiative?**
- Yes
- The audit processes that we set in place was reviewed by external audit group as well
- Auditors checking auditors
- **We like that**
- Money in the bank isn't it
- **Two risk frames from DG3 that I wanted to hand over to you. Just picking because those are the ones you were the risk lead on. We might have already talked about this. First risk is organizational experience. I think we've talked about some of the things done to mitigate this risk. Is there anything you want to share? I did request more detail and was redirected here. Want to confirm I know everything**
- I don't know if you know everything
- **Is there anything that comes to mind?**
- I'll look at it and get back to you. Don't want to tie us up here. Anything above and beyond this?
- This was September 2012 so there most definitely is.
- **Response I received from Nalcor was to go back to this document**
- Did you get IRIS documentation?
- **Can you explain?**
- This was initial thing, on ongoing basis, software called IRIS. If you speak to Tanya Power I'm sure she would be willing to provide you with it
- As an example of evolution of using tools. Initially this was a fairly simple things
- As you move on, different tools
- **Do you recall when iris tool began?**

- No
- **2nd risk frame – retracting and retaining quality**
 - This is ongoing thing attracting retaining quality
 - Ongoing thing I can speak to
 - Almost every day we make sure we try to keep our team together
 - Challenging for multiple reasons
 - I won't elaborate but I think you know what I mean
 - Lost almost 60 people this year alone
 - It is a constant challenge
 - I always try to be positive about the project
 - We're not feeding the naysayers
 - With making commentary that's not appropriate
 - I like to get balance in almost any kind of thing that's going to be put out there
 - Almost everything is put out there
 - I try to make sure level of balance and normally you wouldn't worry about use of certain word or phraseology but this is not a normal project
 - Hands up I'm guilty, I always try to put positive spin to try to get balance
 - Doing my best to keep team together
 - I've lost some excellent people
 - Almost impossible risk to try and push back on some of the outside influence
 - That cause this risk
- **If you take it away and review it and want to provide more detail that's fine as well**
 - (*Legal Counsel*) – this is for Paul to take?
- **Yes, but that's from NAL0020664. DG3 cost and schedule risk analysis report**
 - **When the bids started coming in. By April 2013, we know that contingency was exhausted, what I'm trying to understand. Could you have done recalculated, rebaselined, and say we have to look at this again and see what those numbers were for CPW. Only 5 months in at that time. Anything that precluded you to do that?**
 - Not my call
 - **Who's call**
 - Senior management
 - **Ed and Gilbert?**
 - And government
 - CPW analysis based on the 6.2 billion P50
 - On the isolated and the interconnected island
 - Also a 25% increase in capital cost which would take it to you have this 7.75B
 - 7.75B. does that still make it least cost option, yes

- **Well that's one way to look at it I supposed**
 - I guess that's in their mind it's still least cost option
 - Ok costs are going up
 - We don't like that nobody does
 - Those costs would be almost applicable to the isolated island case as well
 - Maybe
 - I think those things play on people's minds
- **That's your explanation for it did they tell you that**
 - No but I think it's reasonable
- **You did all this, you saw that the estimates were exceeding estimate and you realizes contingency exhausted early on.**
 - Yeah so then we applied for management reserve
 - AFE when you tap into management reserve
 - Government could have said you're not getting it - stop the bus
 - They didn't
 - They gave us more AFE – keep going
- **Do you know if anyone at government said we have to look at this again?**
 - I don't know they don't talk to me
 - This is just a guess
 - Again, this is my own reasonable view
 - Seems to resonate with me that it might be their thinking
- **It's not a bad way of thinking about it I get that. I'm just wondering if anyone said we should do that analysis**
 - You can get paralysis by analysis
 - If it passes that first threshold
 - Is it worth doing
 - I think it might be in their minds
- **True, but contingency exhausted, estimate blown**
 - We were transparent
- **I know you were. Before FLG nothing that precluded Nalcor to say we need to look at this rebaseline, what is this going to cost now, correct?**
 - Anyone could do that yes
- **Nalcor and the province I know it's not you I didn't mean you personally**
- **General question – why wasn't SNC asked to calculate contingency? Why was it separated?**
 - Included owners cost
 - Remember SNC were contractors
 - Any contractor would try to maximize their profit on any job

- Things in the total cost of project that were outside of SNC
- I'm sure they would have loved to get into financing and insurance but that wasn't going to work
- **Why would they love to know all that?**
- Nice scope of work
- **I don't understand why they would like to know all that?**
- Would you tell contractor your own financial situation if you didn't need to?
- **No.**
- Why would you get into financing and know inner workings when didn't need to
- **Couldn't they have just done contingency without that stuff?**
- Contingency was Westney's work
- **Why wouldn't SNC do it**
- We didn't have confidence in them
- They were falling apart
- **The fraud and corruptions?**
- Yes, they were not performing
- On many levels
- On provision of expertise
- Risk manager who had never done risk before
- **Who's that**
- JD Tremblay
- He wasn't even SNC person, he just joined
- He didn't even know PM+
- He would be irresponsible
- Hire people who specialize in that area, not a generalist
- **So I just want to clarify something. Are you saying because of scandals and performance you lost confidence in SNC?**
- No it was always plan that Westney would do risk specialist
- We were going to get specialist and we went out to bid for it
- **When was it?**
- Way before, 2008?
- **Yes , Westney started work with Nalcor in 2007**
- There you go
- They were providing advice
- **They did contingency at DG2?**
- Yes
- And their report indicated that 368M p50 was a reasonable number to go with

- Project could be delivered on that
- **I guess the reason were asking you why not SNC is because what we're hearing is that normally when they do base estimate they would be involved in contingency**
- If it was their scope of work I agree
- If they were EPC contractor of course
- They had no skin in the game
- You've seen the security for SNC
- There's hardly any security
- I could believe it if they were building a highway that they could do it themselves
- If it was their money but it's not
- **Wasn't it 2012 they were EPC?**
- EPCM
- They weren't responsible for the project
- EPCM services
- Big difference Scott
- Huge
- No skin in the game
- **SNC Report. I guess Paul, we may have talked about this previously but I'm referring to April 2013 report. What we do have are some notes from a meeting with JD Tremblay from May 28, 2013 with Paul, Normand and JD Tremblay**
- Do you also have my email
- **Yes were going to talk about that**
- Do you also have my recollections
- **What are you referring to**
- A note I gave to inquiry counsel
- **Called recollections?**
- I think so
- **Do you know what Pauls talking about?**
- *(Legal Counsel)- Kate was supposed to make copies and give to me I didn't get them*
- I didn't remember I wrote an email but I must have
- **Ed came to you and told you about this analysis they did**
- I don't know, it was 6 years ago. Ed came to me and said something about check out the risk
- I can't remember about the nature but he knew we were in the process of the integration
- JD was the so called risk manager for SNC
- So let me know how it's going with risk – might have been something like that
- **Based on the email traffic and what we were told, Ed came to you**
- **Do you know how Ed found out about it?**

- No
- **Our understanding is Normand Bechard said Bob Card told Ed about it**
- Don't know
- **Ok at that time Card was CEO of SNC. Last one between you and Jason, wanted him at the meeting, he declined, want to know what they've been doing Ed raised it with me**
- Brought what to my attention
- **The risk report**
- No
- I think he asked me how it was going with the risk
- **I would like to know if any risks identified by SNC you were aware of that, do you know how Ed found out**
- Well yeah they were our risk manager for the project JD Tremblay
- We were concerned.
- Jason was concerned that JD wasn't doing what he was supposed to be doing
- **Ok. Is that it**
- Yes, I wanted to find out – were they holding risk workshops
- Were they doing what they were supposed to be doing with regards to risk register
- Wasn't responsible for that at that time
- Shortly after I asked Jason
- Risk register that had been managed by JD he wasn't doing what I asked him to do
- Are you holding risk workshops with our management and he said oh I've been trying to do that
- Wasn't happening
- Yeah but we've been doing this other risk workshop and I said well why weren't we notified
- **So Ed didn't contact you and say SNC did this analysis?**
- Not that I can recollect
- I think he just said find out what is going on with risk
- **Ok let's call it report or analysis. I want to be clear. I've been told by SNC folks Bechard and Tremblay that they met with you and we'll show you the notes of the meeting and they told you about this analysis that they did.**
- That's it, I said that
- I met with Normand and JD
- I said that
- Asked about the risk analysis
- They told me
- **Let's back up we need to walk through this. You called a meeting**
- Yes because I was concerned about risk
- **You didn't call it to find out what this is about because Ed told you that?**

- No he did not
- **So your telling me that Normand and JD are lying to me**
- I would never say that
- I would never dream of that
- **I was told they gave this document**
- So how do they know that Ed told me something
- **What did Ed raise specifically**
- I told you. How's it going with risk
- **Alright. As general as that**
- Yes
- **Ok. Then you have a meeting with Bechard and Tremblay**
- This is the first time I've seen that
- **I have no doubt – take your time**
- What's the date
- **May 28, 2013 in your office**
- That's when they told me they have been doing the risk report
- **So that's the first time you found out about it?**
- Yes I say that in my email
- **It said 3rd line down. Paul Harrington met with Ed martin who met with Bob Card.**
- I didn't meet with Bob
- **I know you didn't. But you met with Ed Martin. He never raised this**
- Go check out the risk he said
- They told me they had been doing this risk report
- I said what's going on your supposed to be working with us
- **What was their response when you said that to them**
- Well he said it's an internal thing
- Internal document
- I think it says that on the cover
- Internal use only
- And isn't signed by Scott thon
- Not a final document
- **Concerns here, sensitivity of data, could be subject to ATIPP. Why was that a concern?**
- Because no one from Nalcor had been involved in that risk analysis
- That's a fair comment
- I was taken back
- Why aren't you doing what you're supposed to be doing

- **Then it said financial close 2013 (2nd page, 7 lines down) we will need to demonstrate we have updated action. Looks like you said that to them. JD provide assessment status with risk. So what did they provide you?**
 - No and still hasn't
 - I wanted to find out is there anything new that you found out in your analysis that we were not involved in. Why wasn't it in our risk register now
 - How did we get there
 - Why are you putting it in other risk registers
 - He said I don't know how to
 - I said – you're risk manager
 - Wasn't risk manager very much longer
- **I know you're sick of this. We need to get this issue out**
 - I took the time to ask Westney have you missed anything
- **Yes you gave that presentation to us**
 - Yes because accusation was we were in neglect
- **Let's go through your email.**
 - It doesn't say anything about as advised by Ed Martin
- **Let's take it line by line. It appears M&M division. How did you know that statement?**
 - He told me
- **Who?**
 - Bechard and Tremblay
 - Is there anything new
 - They said no
- **Let's go down to that the next sentence number of important factors. Work based in same source data, nothing new here risk wise. How did you know that if you didn't see the analysis?**
 - They told me
 - I want to be clear
 - That report was not available at that meeting
 - It wasn't there
- **You never saw spreadsheets**
 - Never saw it until 2016
- **Ok. And then it says risk analysis says unmitigated risk cross analysis**
 - I asked that question
- **Reason why you wrote that is because you asked that question – didn't see any document?**
 - No
- **And then, you say after #3 you say so I recommend talk to Scott and make sure we realize we prefer it to remain in draft internal document and not presented to us. Did you speak to Scott Thon?**
 - No

- If Scott was going to it should be with Gilbert
- **Did Gilbert talk to Scott**
- I don't know
- Only thing I can recollect, we had some organization workshop sometime later and in that it was discussed about the draft report. No one had the report
- And we said I think Scott mentioned how are you guys handling contingent equity and we told him we had this letter from Kathy Dunderdale and he said oh its covered then
- **So you didn't talk to Scott but you think Gilbert did**
- I don't know
- **He would be the one to talk to him**
- VP to VP
- **You say internal document not presented to us. Why would you prefer that?**
- Why because nothing new in it
- **How do you know that before you see it?**
- Once you get it, it's there
- **Why wouldn't you be curious to see what they came up with?**
- We weren't involved in it
- Because internal document under their rulers not following our procedures or processes
- I didn't see value to be perfectly honest
- **Huge issue for commission, you know that. I have to issue a report and respond to this email. Do you want to think about it and give us a written answer to respond to this? I want to make sure whatever your perspective is it gets treated fairly. I don't want to say because you didn't want to see it. It's not going to look good. I think you need to be a little further detailed on that and I want to be fair on that**
- Sure, appreciate it
- **I just want to get facts and report them out**
- That's the honest truth
- That's the way it is
- **I'll be honest, thing that troubles me is that you didn't want to see it. I think you need to address that. 2nd question is did management (Gilbert and Ed) did they want to see it. If not, why? I don't know if you can answer for them but you have this report from one of your main consultants and you don't want to see it**
- It's not that we don't want to see it. I just didn't see the value in it
- Because there were no new risks. I only want to know the new risks.
- They calculated by a different method
- We already had Westney to do it for us
- So if they wanted to send it to us, they could have sent it to us under a letter...
- It was up to Scott Thon to approve it, but I don't think they ever did
- **I don't know why they didn't send it to you. I would have sent it if it were me. Do you know why they didn't?**

- I don't know
- Maybe he didn't think it was any good either
- **You sort of think SNC may be doing this to protect themselves, I don't know. But my perception is that they were concerned that risk were not being addressed. I don't know if it's right or wrong just what I'm being told. They did their own risk workshop and honestly I have seen no evidence that you received it.**
- It was never delivered
- **I'm sitting here thinking now from the other side of the coin, they were so concerned about covering themselves, why didn't they just send it**
- If they sent it under Aconex you cannot delete anything it would be in the system
- You cannot delete stuff it's impossible
- I don't know whether it was a document that Scott couldn't support
- I don't know that
- **I haven't gotten a straight answer on the other side**
- I think it was resurrected in 2016 in attempt to snatch the project back
- **If I'm so concerned in 2013 I'm going to say send it**
- I didn't say don't send it to you
- I just said you guys did all this work, we don't have any input
- **Fairness to you, address this question to me. When you read this document, say it becomes public. I think you need to explain it**
- I don't
- I mean
- I reported it up the line
- Last paragraph important
- However something we need to work on together. That is to revitalize the mitigation efforts in the LCP team
- JD wasn't doing it.
- Now time to assess current state and identify action plan to get to desired state
- So I think he mentions desired state, how to get there
- 2nd page
- I have asked
- The last paragraph
- *(Legal Counsel) - in notes under #3 we'll need to desired state*
- I've asked JD Tremblay to provide me with that
- I know that the LCP team says other issues
- He's got to get risk register up to snuff
- Anything they identified that was new in our area
- **I understand. Nagging question is that you didn't want to see it. Need to answer that in writing so I get it right. I want to give you an opportunity to respond to that**

- *(Legal Counsel) - those emails I have this one but not the other.*
- **We can make a copy. Do you have the notes too?**
- *(Legal Counsel) – I have the notes*
- **I see no evidence that you received it**
- We didn't
- **I've asked them to show me proof and I haven't gotten it**
- We didn't
- **I don't think you guys did receive it. Here's the thing that I will be questioned on and you too, you knew it existed why didn't you want to see it. Please address all that**
- Nothing new
- I'll work with Gilbert and Scott
- **I have no problem giving emails I have been given instruction that I can provide Nalcor documents but I don't know about SNC documents. We'll confirm with Kate or David and if we can send it we will.**
- **We've been asking everyone if they've ever been asked to do anything that made you uncomfortable**
- Well I mentioned it to inquiry counsel and I've said it before right. There was changes proposed to CH0031 review team that I disagree with
- CH0031
- There is email trail on that
- I have them
- **What work stream was that Paul?**
- CH0031
- Passes email
- Saying I didn't agree with desire to change ch0031 review team contract review team commercial and technical with EVP responsible for another part of the project
- I wasn't comfortable with that and I stated so
- So I stopped it
- **So the CH0031 contract**
- Balance of the plant
- **Is this a particular vendor your concerned about?**
- There was 3 bidders
- And I didn't agree with the fact that you don't change your technical and commercial review team
- Why is my question
- So I was uncomfortable with that
- **Who was changing the review team**
- John MacLssac
- **Was a particular contractor chosen for that work stream**
- Eventually yes

- **Was it the contractor you would not have considered?**
 - No, we put it back to where it should be
 - Process was allowed to continue through conclusion
 - Bidder called that should have won, won
 - I said no changes to the team
- **He was attempting to change the team and you put your foot down**
 - I said no
- **Why was he attempting to change the team**
 - I don't know
- **Was there any conversations about that**
 - Aside from emails
 - I understand there was a preference for a contractor
- **Which one**
 - I can't remember the name but I sent memo to inquire counsel
 - I've had same conversation with them
- **Kate and Barry?**
 - Yes
 - I don't know if you have any communication with them
- **I know what your implying – do you have evidence**
 - I don't have evidence, you asked me what made me uncomfortable with something, this was one of them
- **This was back in 2016**
 - Shortly after Ed left
 - There's a lot of changes going on there
- **I remember this issue. Technical review team stayed intact, from your perspective contractor that should have won did?**
 - Yes because we followed the protocol
- **Any other situations like this that you're aware of?**
 - That was the last contract
 - I wasn't going to spoil that
- **What was the size of the contract**
 - Over 200 million
- **200 million?**
 - yes
- **Do you have any knowledge what so ever of Maclsaac trying to steer the process to a particular contractor to win that award?**
 - Not that I'm aware of
 - CH0031 \$243M

- **Ok anything else**
- No
- **Thank you**
- **End at 12:36pm**