



Composite Assessment Review Board

REGIONAL MUNICIPALITY OF WOOD BUFFALO BOARD ORDER CARB 001-2013

IN THE MATTER OF A COMPLAINT filed with the Regional Municipality of Wood Buffalo Composite Assessment Review Board (CARB) pursuant to Part 11 of the *Municipal Government Act*, being Chapter M-26 of the Revised Statutes of Alberta 2000

BETWEEN:

Canadian Natural Resources Limited (CNRL) represented by Wilson Laycraft - Complainant

- and -

Regional Municipality of Wood Buffalo (RMWB) represented by Reynolds Mirth Richards & Farmer LLP - Respondent

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BEFORE:

Members: W. Kipp, Presiding Officer
D. Thomas
E. McRae

Board Counsel: G. Stewart-Palmer, Barrister & Solicitor

Staff: N. Chouinard, Assessment Review Board Clerk

A hearing was held October 15 – November 22, 2012 in Edmonton in relation to a complaint filed in April 2011 relating to the 2011 amended assessment notice (2010 assessment for 2011 tax year) of the following property tax roll number:

8992004911 Revised Assessment: \$3,438,633,520 RMWB file 11-090

PART A: BACKGROUND AND DESCRIPTION OF PROPERTY UNDER COMPLAINT

[1] Construction of Phase 1 of the Canadian Natural Resources Ltd. (CNRL) Horizon oil sands project officially commenced in 2005 after the company sanctioned the cost budget and was completed in 2009. This was CNRL's first venture into oil sands mining and, as a part of the development of this facility, it established Horizon Construction Management Ltd. (HCML). Some evidence before this hearing relates to Canadian Natural or CNRL while other references might be to Horizon or HCML.

[2] The first assessment of the completed facility was entered on the roll for the 2010 tax year. The roll number being considered in this hearing is an amended machinery and equipment (M&E) assessment for the 2011 tax year. The amended assessment of \$3,438,633,520 was sent to the property owner on March 11, 2011. The Complainant has raised the issues listed in its Reasons for Complaint document.

PART B: PROCEDURAL OR JURISDICTIONAL MATTERS

[3] The CARB derives its authority to make decisions under Part 11 of the *Municipal Government Act*, R.S.A. 2000, c.M-26 (the MGA).

[4] Several preliminary matters arose at the beginning of the merit hearing:

- a. The re-marking of exhibits;
- b. Which version of the Cost Rendition should the CARB accept?
- c. Should the Complainant call Mr. Shaw to give evidence at the beginning and at the end of its case, and if so, should Mr. Shaw be considered to be under cross-examination until the completion of his evidence?
- d. The Complainant has requested a confidentiality agreement in relation to portions of the evidence of Ms. Zeidler.
- e. Should the CARB accept the “Materials to be referenced by Kerry Minter in his testimony during the hearing October 15-November 23, 2012”?
- f. The Complainant questioned whether it would be provided with a fair hearing if the CARB holds to its direction of sitting from 9 am to 9 pm on Wednesdays.

Position of the Parties

Complainant

[5] In regard to the numbering of the exhibits, the Complainant was not requesting the exhibits to be remarked, but requested clarity about the status of the preliminary hearing exhibits and wanted to know what reliance is to be put on them. The Complainant has no issue with the documents from the preliminary hearing in June being marked as exhibits for the merit hearing, but expressed a concern about the admissibility of documents when the witnesses are not present and what it does to a question of weight.

[6] In relation to the cost rendition, the Complainant indicated that the 2009 rendition is used most of the time. The main rendition is the November 2009 version. There is a December 16, 2010 revised version, for which a paper copy has been filed, but is incidental. The Complainant also has a January version which was filed in their materials and to which Mr. Celis will speak.

[7] The Complainant wishes to have Mr. Shaw present his evidence in two parts. The first part of his evidence will be about the assessment regime without reference to CNRL. The second part of his evidence will be about the Canadian Natural – Horizon M&E assessment. The Respondent advised the Complainant that if the evidence of Mr. Shaw was split, the Respondent would ask the Board to treat Mr. Shaw as if he were under cross-examination for the duration of the period between his evidence thereby preventing Mr. Shaw from speaking with counsel for the Complainant in the interim period. Counsel for the Complainant was of the view that he would not discuss with Mr. Shaw the evidence Mr. Shaw gave during the first part of his testimony throughout the remainder of the hearing and that would meet his ethical responsibilities. The substantive part of Mr. Shaw’s evidence will not be given and will not flow until Mr. Shaw is the last witness. He will need to be briefed before then.

[8] The Complainant has requested a confidentiality agreement in relation to portions of the evidence of Ms. Zeidler because of her evidence in relation to why the Complainant suffered cost overruns from the sanction estimate. There are sensitive aspects in her evidence and the Complainant would like there to be a confidentiality agreement signed by the witnesses for the Respondent.

[9] The Complainant asked the CARB to accept the “Materials to be referenced by Kerry Minter in his testimony during the hearing October 15-November 23, 2012”. This compendium contains, among other things, transcripts from various cross-examinations of witnesses during preliminary hearings for the 2010 assessment complaint. For this 2011 merit hearing, the Complainant did not believe that Mr. Minter would be referring to the transcripts, but wanted the document available if required.

[10] The Complainant questioned whether it would be provided with a fair hearing if the CARB holds to its direction of sitting from 9 am to 9 pm on Wednesdays. The Complainant expressed concern that should the CARB sit for extended hours, it may not have the capacity for well-received evidence. The Complainant asked the Board for flexibility in timing and indicated that there would be periodic updates regarding the progress of the hearing.

Respondent

[11] The Respondent has marked its exhibits and has prepared its witnesses based upon the numbers identified by the CARB at the previous preliminary hearings. It is not prepared to renumber the exhibits at this point in time. The number assigned to the exhibit is merely a label. The real issue is what the Respondent will be relying upon. This is more challenging, because the Complainant has indicated it will be relying upon information from the prior tax year. The Complainant has indicated that it will be alleging that Mr. Schmidt (the assessor who prepared the 2010 tax year assessment) had agreed to certain things. If so, the Municipality will need to present his responses that are contained in exhibits marked during the 2010 preliminary hearings. If the Municipality does seek to admit a document where a witness does not speak to the report, the CARB will have to assess the weight to give to the evidence. It does not go to the admissibility of the document.

[12] The Respondent notes that the Complainant has provided the cost rendition which was provided in response to the Municipality’s request for information, which appears to be the document which the parties will be referring to and which is acceptable to the Respondent.

[13] In relation to the evidence of Mr. Shaw, the Respondent notes that the hearing relates to a regulated assessment. As such, Mr. Shaw’s evidence on the legislation leads directly to how he could apply it to the Complainant. The dividing line between the first and second parts of his evidence is not clear to the Respondent. The Respondent’s position is that, if the Complainant chooses to split the evidence of Mr. Shaw, Mr. Shaw should be treated as being under cross-examination for the duration of the time between his testimony until all of his evidence has been given and all cross-examination completed.

[14] The January report of Ms. Zeidler contained a request to treat sections 2 and 3 of that report as confidential, to be used only in the context of the complaint and to seal those portions

of the evidence. The Respondent has no objections to its witnesses signing a confidentiality agreement and will work with the Complainant to finalize the wording and provide a copy of such an agreement to the CARB.

[15] In relation to the “Materials to be referenced by Kerry Minter in his testimony during the hearing October 15-November 23, 2012”, the Respondent indicated that the transcript from the September 2010 hearing exists as R19. The Respondent argued that it is not proper for a witness to refer to the transcript of other people to identify what they said, stating that this is argument and for counsel for the parties, not the witnesses. Tab 4 of the “Materials” is a joint report of Mr. Minter and Mr. Celis, which had not been testified to in the 2010 tax year, due to the Court-Ordered stay. To the extent that the Respondent can identify who will be speaking to which part, it has no objection and will be prepared to cross-examine him about that.

[16] The Respondent agreed that there was a great deal of work for the parties to put in at the end of the hearing day and that a long day on Wednesday will be difficult for everyone. However, the Respondent will accept the CARB’s direction. The Respondent is concerned that if the timing is not monitored, it may have to give up parts of its case, or be in the position of having to go late when it is presenting its evidence.

Decision and Reasons

[17] The CARB makes the following rulings in relation to the above preliminary matters.

[18] In relation to the numbering and layout of the exhibit list, the CARB will not renumber the list because the parties have had the numbering since the summer and it will cause a great deal of work for the parties and may cause confusion as the parties have prepared their witnesses on the basis of the numbers previously provided. To identify the documents marked from the preliminary hearings, the parties will have to look at the dates that the documents were filed. The CARB notes that the Complainant is concerned that the Respondent may be seeking to have a document put in without having a witness speak to it. However, at this stage of the hearing, no document has been referred to. The CARB will wait for the circumstance to arise and will address the issue should it arise, which may result in little weight being placed upon the evidence. However, at the beginning of the hearing, it is premature to speculate about what reliance the Respondent will seek to place on any document.

[19] In relation to the cost renditions, the CARB understands that the parties agree that the original December 2009 rendition is the one that the hearing will be focused on, but that the other cost renditions may be of assistance to point out some of their components. The CARB will focus on the December 2009 cost rendition. The CARB has marked the CD containing the cost renditions as exhibit C63. In light of the parties’ agreement that the December 2009 rendition is the critical rendition for the CARB to focus on, it does not need to make a ruling in relation to the admissibility of the other cost renditions which are contained on the CD. The CARB notes that there are paper copies of the December 2009 cost rendition contained in the materials as well.

[20] In relation to the evidence of Mr. Shaw, the CARB acknowledges the concern of the Respondent that Mr. Shaw's view of legislation will overlap in terms of how it is applied to the Complainant's 2011 assessment. The CARB notes that the rule against speaking to a witness under cross-examination is intended to prevent counsel from trying to rehabilitate a witness while under cross-examination, and not to deal with evidence presented at two different times in the hearing. The CARB noted and appreciated Complainant's Counsel's undertaking not to speak with the witness about the first part of his testimony between the times that he would give evidence. However, the CARB is concerned that when the evidence of one witness is split into two parts, whether split by days or by a short time, that there is still potential for there being "rehabilitation" of the witness. The CARB is prepared to grant the Complainant the opportunity to consolidate the evidence of Mr. Shaw and present it at one time during proceedings. If the Complainant does not wish to do so, the CARB directs that Mr. Shaw will be considered under cross-examination from the time that he completes the first portion of his evidence until he completes all portions of the evidence. Based on what the CARB knows of the evidence of Mr. Shaw, the CARB finds it difficult to draw the line between an assessor's interpretation of legislation and then how that witness would apply it and, as a result, the only way to address this is one or the other of the above two approaches.

[21] In light of the agreement between the parties relating to confidentiality, the CARB did not need to make a ruling at the beginning of the hearing. The parties later submitted a letter of confidentiality, marked as exhibit R66. The CARB acknowledges the concern of the Complainant that some of the evidence of Ms. Zeidler is sensitive and should there be a request for this information, the CARB will not release it without notifying the Complainant.

[22] In relation to the Minter materials, the CARB accepted the document in its entirety. The CARB noted that any comments Mr. Minter might make based on the evidence of others in other proceedings might be his opinions, but the CARB is aware that the other witnesses are not present at this hearing. The CARB noted that if the evidence was presented based upon what Mr. Minter heard, the CARB would accept the evidence on that basis. The CARB decided not to remove sections of the document at the beginning of the hearing, and marked the document in its entirety as exhibit C64.

[23] The CARB notes the concerns of the parties in relation to the hearing times and notes that there must be flexibility. The CARB will make every effort to keep the daily proceedings as close to business hours as it can, but it will not close the door to long days if there is a risk that the hearing will not conclude within the scheduled time. The CARB will keep a close eye on the proceedings and will adjourn early on Fridays and at close of business on Wednesdays. However, if the need arises, it may schedule longer days. The CARB is concerned that it would be unfair to one or both parties if the hearing does not conclude within the six weeks scheduled. Further, it would be unfair to have one party have longer hearing days or to have insufficient time to present its case.

PART C: MERIT MATTERS

Position of the Parties

Complainant

[24] The Complainant called six witnesses:

- a. Mr. Kerry Minter
- b. Mr. Terry Stowell
- c. Ms. Lynn Zeidler
- d. Mr. Marco Celis
- e. Mr. Fumio Otsu
- f. Mr. Ken Shaw

Mr. Kerry Minter

[25] Mr. Minter has worked for the Complainant since 1999 and since 2006 has been responsible for the Property Tax Accounting area. In this role, he is responsible for all aspects of the rendition, booking payments and reporting.

[26] In 2004, the Complainant started work to prepare for the reporting of costs in relation to the Horizon plant. It wanted to ensure that it had a clear understanding of the assessor's expectations. From 2004 to 2009, there were 14 meetings:

- 1 in 2004
- 1 in 2005
- 2 in 2006
- 3 in 2007
- 6 in 2008
- 1 in 2009

[27] The Complainant filed a cost rendition at the end of 2008, reporting capital expenditures of \$8.7 billion to the end of that year with \$4.4 billion as assessable costs. It was factored down for an operational adjustment of 67% and an assessment of \$1.7 billion. Horizon was not operational yet. In 2009, there was an agreement to pay an additional \$35 million of taxes. The \$1.78 billion was carried forward to the March, 2009 assessment.

[28] The final meeting with the assessor occurred in September, 2009. On March 1, 2010, the assessor issued the assessment which was in line with CNRL's analysis and expectations at approximately \$2.4 billion. However, four days later CNRL received an amended assessment with no indication of reporting deficiencies or a request for a meeting. The revised assessment had been increased by approximately \$1.4 billion.

[29] On March 18, 2010, CNRL wrote to the Municipality requesting details in relation to the adjustment. On March 22, 2010, the Complainant called Mr. van Waas, the appointed municipal

assessor about the reasons for the amended assessment. During that call, Mr. van Waas noted that the 2009 assessment was disconnected with a CAPEX assessment ratio report that had been prepared by a consultant for the Oil Sands Development Group (OSDG). Based on information in that study, the minimum assessed value of M&E should have been 34.26 percent of the total capital expenditures for the project. Application of that ratio accounted for the difference between the original assessed value and the amended assessment. The application of a ratio to the final number is not an acceptable method of calculating an assessment.

[30] CNRL disagreed with the application of the OSDG report. It had not been consulted on the use of the report for making an assessment and had not been given any opportunity to respond to it. To Mr. Minter's knowledge, the OSDG report had not been sanctioned for assessment purposes. The Complainant had not experienced a situation like this before. Usually, it has a dialogue with the assessor before there are changes.

[31] Although the assessor stated that the 2009 assessment represented a 50% complete facility, the 2008 reported costs were \$9.8 billion which was about 97% of the total \$10.1 billion final construction cost.

[32] In October, 2010, the Complainant received the yearly request for information (RFI) in relation to the 2010 assessment. The first part of the request is a standard request by the assessor to obtain information in relation to any changes for the year. However, the assessor also asked for further information in an attachment to the typical RFI marked as Schedule A. The Complainant responded on December 13, 2010. On March 23, 2011, the Municipality responded indicating that it had insufficient time to review the information prior to preparing the assessment roll but once it was reviewed, it was found to contain numerous deficiencies. It was CNRL's opinion that the alleged deficiencies related to questions that had not been asked in the RFI. For example, the assessor wanted source documents to support some of the information in the RFI response but that source documentation could have involved thousands and thousands of documents. CNRL did offer to make a room in their offices available to the assessor and he could review any documents that he wanted.

[33] Given the ever-changing information requests being made by the Municipality, CNRL became concerned that they were being treated differently than other oil sands facilities and they reacted by requesting information from the Municipality pursuant to sections 299 and 300 of the MGA. Subsequently, there was further correspondence between the parties but CNRL was never satisfied with the responses from the assessor.

[34] CNRL was entering the oil sands mining sector for the first time and the company incurred many costs that were booked to the Horizon Project but were costs that would not have been incurred by other companies operating in the sector. CNRL was of the opinion that these additional costs should be excluded for assessment purposes.

Mr. Terry Stowell

[35] The Complainant sought to qualify Mr. Stowell as an expert able to give opinions about industrial assessment in Alberta and interpretations of the Construction Cost Reporting Guide (CCRG). Mr. Stowell gave evidence about his background, indicating that he had assisted with the preparation of industrial assessments for predominantly two owners, Suncor and CNRL. He had worked on industrial projects with Suncor, at the Firebag and Millennium projects. He testified that he was on the committee that had input into the creation of the CCRG. Mr. Elzinga had also been on that committee. He is not an accredited assessor. He has not prepared assessments, but has prepared the renditions to be reviewed by an assessor.

[36] Following an objection by the Respondent to Mr. Stowell's ability to give opinion evidence, the Complainant argued that Mr. Stowell was amply qualified to give opinion evidence based on Mr. Stowell's experience in preparing renditions during his forty years' experience in the industry.

[37] The Board considered the matter and qualified him as an expert witness to give opinion evidence in relation to the preparation of renditions for assessments. The Board was of the view that Mr. Stowell's background in assessment, primarily related to industry and his many years of dealing with assessors has made him aware of the legislation and the year to year changes. Thus, he could provide opinion evidence.

[38] Mr. Stowell assisted with the report template for CNRL starting for the 2005 tax year. Over the course of 2004 to 2008, there were a series of meetings at which CNRL staff discussed the format for cost reporting with Mr. Schmidt, the contract industrial assessor. They discussed the modeling and the non-assessable and excluded cost categories and classifications. The meetings between CNRL representatives and the municipal assessor occurred on the following dates:

- June 17, 2004
- October 19, 2005
- June 15, 2006
- October 17, 2006
- May 31, 2007
- June 13, 2007
- October 24, 2007
- March 4, 2008
- June 10, 2008
- Sept 10, 2008
- Nov 10, 2008
- Nov 27, 2008
- July 7, 2008
- Dec 12, 2008
- September 15, 2009

[39] Mr. Stowell attended nine site inspections with the assessor (Mr. Schmidt) over that period.

[40] Mr. Stowell advised that he provided Mr. Schmidt with the rough estimates which are set out in various pages of exhibit C39.

[41] In June, 2007, the parties got into discussions about the format for reporting. At that time, Mr. Stowell provided Mr. Schmidt with the binders and the cost format and a list of 45 items to be excluded or partially excluded. Mr. Stowell indicated that the CNRL format had buy in from the assessor, Mr. Schmidt.

[42] Mr. Stowell advised the Board that Mr. Schmidt had reviewed the 45 item list. The format as well as the backup information had been given to Mr. Schmidt along with a description of the categories. Sample entries were also provided. Information was sent to Mr. Schmidt throughout the process between 2004 and 2008 and he had not objected to the information received from CNRL.

[43] Mr. Stowell explained the cost rendition model, relating it to the CCRG codes. He identified the areas of exemption set out in the CCRG. Part of his role was to identify the included versus excluded categories based upon his interpretation of the CCRG. He indicated that he established the 45 items of exempted costs. Mr. Stowell indicated that originally there were 45 items of excluded costs which was later increased to 46. The last item added was a catch-all called "unrelated costs." Four examples of excluded costs were for:

- Rework
- Abnormal costs due to site location
- Inadequate workforce
- Inclement weather

[44] Mr. Stowell indicated that it was Mr. Celis' responsibility to put costs within the various categories. His job was primarily to create the format for reporting but he testified that he did double-checking on Mr. Celis' numbers but not a detailed review.

[45] It was Mr. Stowell's opinion that owner supervision was non-assessable unless it replaced contractor supervision. He also indicated that costs must reflect Edmonton costs. CNRL listed what it called "front-end loading" costs. The front-end loading costs (scoping study, pre-construction, design based memorandum [DBM], engineering design specifications [EDS] etc.) were actual costs. In Mr. Stowell's view, all camp costs were non-assessable. The camps themselves are assessable as buildings and structures, but the meals are an abnormal cost because they are not required in the Edmonton area. Travel costs also fall within the non-assessable category as they are not required in the Edmonton area. With regard to freight costs, standard loads are shown at page 1240 of exhibit C39. The back-loading and unloading costs are assessable, as they were trying to determine freight costs beyond Edmonton. In cross examination, Mr. Stowell acknowledged that he had done no research regarding the Edmonton base.

[46] Productivity was also an issue in the construction of this plant. The Complainant hired Fumio Otsu and Terrance Stam to assist them in quantifying abnormal costs in this area. Mr. Otsu set the ground rules for loss of productivity using a mid-Alberta baseline and going on to establish a quantity adjusted budget for the project and measuring that against the methodology.

CNRL provided the entire productivity model to Mr. Schmidt for his review. Mr. Otsu was the expert who went through the calculations along with Mr. Celis. They utilized a mid-Alberta estimate for the baseline. Mr. Stowell went through examples from the exhibit showing the delay costs due to productivity losses.

[47] CNRL was having issues with labour productivity due to the remote location, the shortages of manpower, and the delay. Further, the hiring of less than optimally trained staff affected productivity. Mr. Stowell provided Mr. Schmidt with this information.

[48] Mr. Schmidt reviewed the spreadsheets provided by CNRL and noticed that the owner's cost was 16% of the total cost so he asked for more detail. At the meeting on September 10, Mr. Schmidt's concerns were satisfied.

[49] Mr. Stowell advised that in relation to pre-investment, in September 2007, the 6/10's rule was applied. The owner's costs were not included as they were not assessable. This was discussed with the assessor. In relation to pre-investment, the information had been provided to Mr. Schmidt as well.

[50] In relation to the change-order analysis, samples were given to him following the March 2008 meeting. Change orders were used to correct deficiencies from original construction. If there was no increase in scope, then the change order amounts were not assessable. If there had been a change in scope, and if the original work was assessable, then so was the cost of the change in scope.

[51] Mr. Stowell went through the exhibit identifying the various numbers contained in the categories.

[52] Mr. Stowell indicated that the principles used in the CNRL Horizon Project were consistent with the other projects that he had worked on. The process was the same at the Suncor Millenium plant. He had generalized discussions about how this process was the same as used elsewhere.

[53] In cross examination, Mr. Stowell acknowledged that the Minister's Guidelines and the CCRG are regulations. The Interpretive Guide for the CCRG is not a regulation. He interpreted the legislation based on his experience. He was not aware that the Municipality was not challenging the sufficiency of the reporting.

[54] In relation to the installed equipment that was considered to be a pre-construction cost, Mr. Stowell stated that it did meet the definition of machinery and equipment in MRAT. However, the equipment was larger than it is required to be. He was not sure whether the oversizing was part of the operational unit. He felt it was an abnormal cost under CCRG to have oversized equipment and felt that the CCRG gave allowances for this to be excluded. In his view, the scoping study was prepared to determine what the company wanted to build, not how to build it. It is at the front end of the project. He was not sure what other feasibility studies occurred before the scoping study. He stated that CNRL had a design based memorandum (DBM) and engineering design specifications (EDS). The EDS are a control document. They are given to contractors to prepare bids for tendering. Mr. Stowell acknowledged that the terms

‘design based memorandum’ and ‘engineering design specifications’ are not contained within CCRG, but stated that CCRG does not specifically mention other things which are dealt with. In Mr. Stowell’s view EDS and DBM are not used to build the plant. In his view, these would be excluded costs.

[55] In his interpretation of the CCRG, any costs for items under 2.100 are costs to be excluded.

[56] In relation to normal rework, Mr. Stowell advised that the CCRG set Edmonton as the base. He stated that rework does not improve the process or increase the inventory and is therefore abnormal. Mr. Stowell acknowledged that his goal was to get costs placed within the excluded category. Although the object was to eliminate duplication of claims for rework and productivity, he did not specifically check to determine if there was duplication. This was left for others to do. However, he was convinced that there was no double claiming of excluded costs.

[57] On cross examination, he admitted that he had not done any investigation to determine whether there were incentives paid on projects built in the Edmonton area. He was aware that where incentives were paid, they were always excluded costs.

[58] Mr. Stowell acknowledged that when a claim for excluded costs was being made under Section 2.500 of the CCRG, there was no attempt to research whether that was typical in Wood Buffalo or in central Alberta.

[59] Mr. Stowell indicated that based upon his interpretation of Section 2.500, any costs above the original bid documents of \$6.8 billion were considered by CNRL not to be typical costs and therefore excluded under the CCRG.

[60] With regard to adequate work force, Mr. Stowell assumed that the normal event was an adequate work force at the gate and ready to go. Any additional money spent beyond that was not a typical cost. He stated that the CCRG provided for normal costs within the Edmonton area. If there were delays or a lack of skilled craft labour, this was not typical, nor reflective of a normal market.

[61] Mr. Stowell acknowledged that the model does not expressly quantify expenses incurred in Edmonton and then measure the difference at Fort McMurray. He indicated that the differential between what his expected costs in Edmonton versus those in Fort McMurray were found in the items identified as abnormal costs to the plant site. He confirmed that the Edmonton numbers were not found within the CNRL cost rendition.

[62] Mr. Stowell acknowledged that there was no heading in the CCRG addressing owner’s costs. His model includes his interpretation of what those costs are. In his interpretation of the CCRG, owner’s costs are excluded because they do not fall within Section 1.000, which are the included costs. CNRL did not include anything as included costs if the costs were not directly related to construction. Where the owner was protecting its interests, those costs were not directly related to construction and therefore not included in the model.

[63] It was Mr. Celis' role to populate the form. He did not check Mr. Celis' numbers in the final report. His role was to set up procedures and methodology coming out of CCRG. From his general overview, the numbers looked reasonable.

[64] On cross examination, Mr. Stowell acknowledged that the formatting given to Mr. Schmidt through the course of the meetings was populated in certain fields, but largely not populated. Over time, the fields were populated by Mr. Celis.

Ms. Lynn Zeidler

[65] Ms. Zeidler is currently the VP of Horizon Management. She was involved in the construction and operations of the Horizon Project, from obtaining regulatory approval to ongoing operations. She has been involved with four mega projects. She indicated that the original rendition had been jointly prepared by CNRL and the assessment was consistent with the CCRG and the practice of the time.

[66] Ms. Zeidler outlined the process for the production of synthetic crude oil (SCO) through the surface mining, bitumen production-ore preparation, extraction, primary upgrading and finally secondary upgrading processes. The SCO is then shipped by pipeline to refineries.

[67] Ms. Zeidler indicated that the utilities and off-site business area supports all portions of the production. Ms. Zeidler also provided an overview of the project site. The site is 4.5 kilometres long by 2.5 kilometres wide. Given the decision to develop the facility in phases, there have been spaces left for the expansion of various areas, for example the froth treatment plant.

[68] In February 2005, CNRL obtained corporate approval for the construction budget. The project was approved on an aggregate of Phases 1, 2, and 3. The decision to approve in phases lead to the pre-investment concerns arising through this hearing. Phase 1 was sized for the production of 110,000 barrels per day, with the Phases 2 and 3 expansion to increase production to 232,000 barrels per day.

[69] Following budget sanction in February 2005, by February 2006, piles were in the ground with CNRL getting ready to erect major equipment. By the 4th quarter of 2006, the extractor plant and others were being installed. In 2007, buildings and pipe racks were being constructed, but the tanks were not well developed. By the 3rd quarter of 2008, the project had come a long way. However, there had been delays. Although originally scheduled for a summer 2008 start-up, CNRL had to plan a winter start-up due to "schedule slippage." This added time and cost to the final completion of the project.

[70] The detailed engineering took in excess of 40 months to complete. The sanction budget was \$6.8 billion. At the end of day, the total project cost was \$10.1 billion.

[71] There were about 800 different contractors for the entirety of the project.

[72] CNRL was cautious about the approval and the cost estimates were critical to its decision to proceed. Until February 2005, the project could have been cancelled. All contracts had

cancellation clauses. The costs to create the Horizon management company and establish new financial systems, etc. were booked into owner's costs. CNRL did not proceed until the design based memorandum was completed. DBM was an evaluation of various options. The choice of technology was a critical part of the feasibility studies and the engineering studies. The feasibility study was an analysis of the proposed project. The DBM was a conceptual stage where two or four different options were being evaluated to determine the best technical solution to the problem. At the EDS, they had taken one or two options and were trying to quantify them. Costs incurred prior to sanction were non-assessable. In CNRL's view, all pre-construction costs should be non-assessable.

[73] CNRL had flat-rate-lump sum contracts for 68% of the work. The contractors were at risk for their bids and therefore spent much money in order to be accurate in terms of their projected costs (bids). The contractors bore the risk of working in Fort McMurray and of the rework and these estimations of risk were contained in their contract estimates. CNRL recognized the value of a lump sum contract. If the contractor could not demonstrate that a change order was outside of his control or was an unusual cost, the contractor could not pass those change order costs to CNRL. However, CNRL incurred costs due to the lack of qualified local labour. The market had reached its peak at the time of the completion of construction.

[74] Following the completion of the work, CNRL did a review of the cost increase. Although there was a growth in the total project cost from \$6.8 billion to \$10.1 billion, the scope growth was very low at 2%. There was limited rework. CNRL believed that if the market had a sufficient labour force and raw materials available, it could have achieved its sanction estimate.

[75] CNRL did not deviate from conventional construction practices. However, rather than having one or two major contracts for the project development, it had a multitude of smaller projects going at the same time to ensure that their contractors would be successful. CNRL had hoped to have 20 major EPC contractors, but ended up with a larger number reflecting this breakdown of work. CNRL considered whether it should self-perform, but decided that ultimately it did not have the expertise and would carry on with a traditional model to contract out those works.

[76] CNRL did fly in workers from various locations. The normal items of shift cycles and premium of costs were addressed in the tenders. CNRL also faced delays in the delivery of key pieces of equipment. This had a cascading effect on delays.

[77] Although commodity prices spiked, many pieces of large equipment had been ordered before the price spiked. However, the ordering of bulk materials during the time of cost increases increased the costs for CNRL. Ms. Zeidler took the Board through the cost increases for various commodities pricing including aluminum, steel, and copper.

[78] Ms. Zeidler stated that the serious cost overruns incurred by CNRL were not due to a lack of study, nor was it due to bad engineering or poor planning. Rather, it was due to the heated market and the constraints on both labour and cost of materials which CNRL faced. Ms. Zeidler indicated that CNRL had hired cost engineers after the fact to examine the cost increases to assess why the cost of the project rose from \$6.8 billion to \$10.1 billion. She gave explanations

for the cost overruns which included the fact that there was a labour shortage. CNRL had to attract qualified labour from outside of Alberta and outside of Canada.

[79] Ms. Zeidler explained the pre-investment costs resulting from the over building of Phases 2 & 3 at the time of construction of Phase 1.

[80] Ms. Zeidler explained the front-end loading costs. These were the company set-up charges based upon the creation of Horizon Management. It included the accounting, human resources, and other aspects and departments required for the new company.

[81] The pre-construction costs were the scoping studies, DBM and EBS studies which were completed prior to the construction of Phase 1. Some of the front end loading costs may also be categorized as pre-construction costs.

[82] Ms. Zeidler described what fell within owner's costs. These included the creation of the airport and the busing of staff, the costs for the construction of roads and bridges, and the initial design work.

[83] CNRL also faced increased costs as a result of cascading delays from delays in delivery of materials. The inability to maintain a work force familiar with the site affected the contractors' ability to perform and also caused delays.

[84] In CNRL's view, if there was a change order for a project, not resulting from scope change, then it was a productivity loss and was booked as such.

[85] The hydrotreater was the biggest cost and the last on stream. There was some scope change, but there was also some change driven by reconfiguring the project.

[86] There were some issues relating to contractors not being able to complete. The engineering and project support resulted in only 1% deviation from the sanction cost. The direct and indirect costs of construction saw a significant increase. The contractors were purchasing supplies at an increased cost and with an increased demand. The contractors had a need for more labour and were having difficulty managing it. There were cost increases shown at 43% for construction in the press releases. This amounted to \$2.5 billion in the construction area. There were also delays and cost increases due to the delivery of modules. The work was divided amongst more shops in Edmonton. If only Edmonton had been impacted by the hot market, CNRL might have recovered in the field, if the labour was familiar with the company and supervision was not stretched. However, due to the heated market, there was no opportunity for CNRL to recover. There was an insufficient labour market, therefore supervision was stretched. This translated to delay, which then cascaded from one contractor to another.

[87] CNRL faced difficulties with certain contractors. CNRL had to do certain rework relating to the Romanian pipe which was not of sufficient quality in the job for which it had originally been installed. CNRL also faced difficulty due to a tank failure resulting in two fatalities and causing the termination of that contract. The replacement contractor ultimately hired to complete the job had a back log. This resulted in transitioning between four contractors

for this work. This was outside of the normal scope of productivity and transition issues. CNRL was not in the best position to negotiate the best costs due to these factors.

[88] Ms. Zeidler stated that with lump sum contracts, the original contract value had been estimated by the contractor. The contractor only got paid more money if there was scope growth to the project, quantity increases, or specification changes. If the contractor could not prove external factors, he would bear the risk of a cost increase. If there was an external factor, a change order was issued and it went into the delay analysis.

[89] For unit rate contracts, the original start date and finish date and the extension of time resulted in two items. The first was that the contractor did more or less units. This had overhead associated with it. The contractor got paid for an increased number of units. It was, in effect, like a scope-growth issue. CNRL also had some cost reimbursable contracts. In these cases, CNRL bore the risk of the overrun.

[90] Ms. Zeidler went through the analysis of the delay cost on a production unit basis. In Ms. Zeidler's view, CNRL had a watching and oversight role, but did not control the project. All construction work was done by contractors. CNRL was entitled to inspect the work. CNRL had staff on site because the project was sufficiently large that it could not wait until the end of the project before the project was handed to CNRL for operation. There was one major exception where CNRL was the prime contractor under Occupational Health & Safety legislation. CNRL relied upon the contractors' skill knowledge and experience in performing the work.

[91] On cross examination, Ms. Zeidler acknowledged that EDS gave guidance to the contractors to advise them as to the technologies CNRL wanted. The contractors did the detailed engineering.

[92] In the productivity formula, there is recognition in shift overtime, which is understated. Due to the delays, CNRL paid overtime for extended hours or night shift. The overtime premium had been disallowed by the Municipality in the preparation of the assessment. In cross examination, Ms. Zeidler acknowledged that some of the items mentioned, for example water and utilities, and flights were excluded costs claims accepted by the Municipality. She was not certain as to the exact number.

Mr. Fumio Otsu

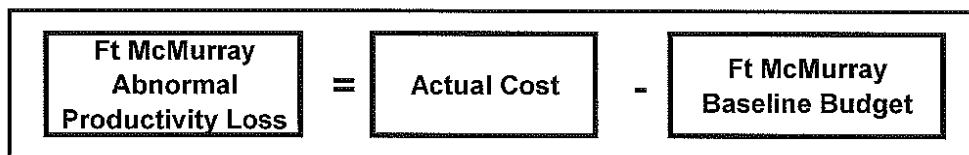
[93] Fumio Otsu was sought to be qualified as an expert in all aspects of cost engineering, preparation of budget estimates, planning, and scheduling. The Complainant also sought to have Mr. Otsu qualified in the application of cost engineering principles in the CCRG in Alberta.

[94] The Respondent did not have any objections to Mr. Otsu's qualifications in the first area, but objected to his being qualified to give opinion evidence on the application of cost engineering principles in the CCRG in Alberta on the basis that Mr. Otsu was not an assessor and his knowledge of the application of the CCRG comes based on second hand information from other individuals with whom he has worked.

[95] The Board accepted Mr. Otsu's qualifications to provide expert testimony in the area of cost engineering and estimating, budget planning, and scheduling for similar projects. However, the Board did not qualify him as an expert in the area of the CCRG on the basis that it had not heard sufficient evidence to justify his giving opinion evidence on the area of the CCRG within Alberta.

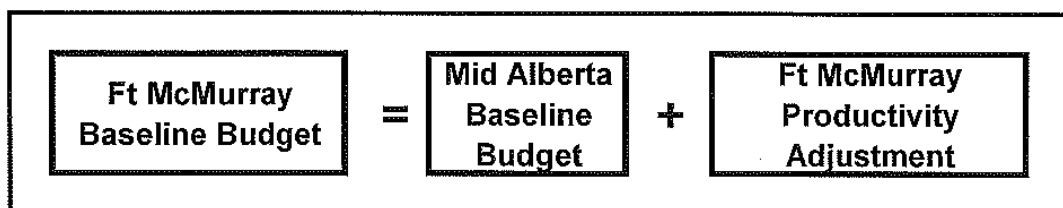
[96] Mr. Otsu indicated that cost engineering was the school of study looking at estimating, budgeting, forecasting and scheduling. For his productivity analysis, he focused on the direct field costs for the permanent plant. His evidence was that the Horizon Project experienced abnormal productivity losses greater than typical construction costs due to the unbalanced economy. Mr. Otsu calculated the baseline budget using a practice established by the Association for the Advancement of Cost Engineering (AACE). He calculated total abnormal productivity loss using a baseline budget based upon the Fort McMurray baseline budget. The Fort McMurray baseline budgets for the construction contract or values were estimated from the completion of detailed design. He calculated the Fort McMurray abnormal productivity loss as the difference between the baseline labour budget for Fort McMurray and the actual labour cost for the project. This is represented as follows:

Figure 1



[97] The second component of productivity loss arises from the difference between Fort McMurray and mid-Alberta as represented by the following diagram:

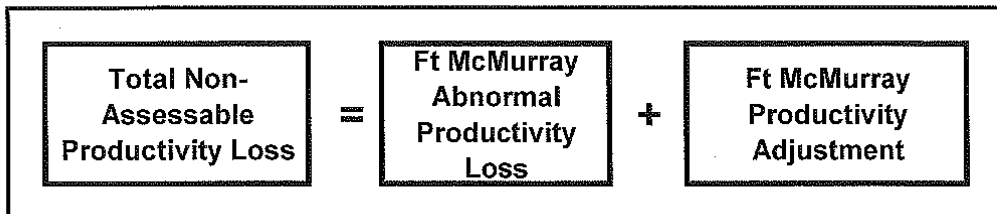
Figure 2



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[98] Mr. Otsu used Fort McMurray as the baseline and then adjusted to mid-Alberta to show the additional productivity loss. His calculations show the total non-assessable productivity loss as represented by the following diagram:

Figure 3



[99] Mr. Otsu stated that CNRL suffered productivity losses based upon six factors which were included in the contractor estimates based upon their experience at the Fort McMurray location. These factors included:

- Busing from camp to gate and from gate to site
- Working shift
- Turnover of craft and absenteeism
- Winter impact
- Material logistics
- Training

[100] Mr. Otsu calculated the total productivity loss at 27%.

[101] Mr. Otsu indicated that contractors when estimating bid prices would go through a risk analysis and would have accuracies applied to the numbers depending upon the discipline and the accuracy of the estimating. He indicated that CNRL mostly had lump-sum contracts or unit price contracts. CNRL ran a risk analysis on the bids and then added its own contingency of \$700 million on the \$6.1 billion for the sanction estimate of \$6.8 billion. CNRL put the contingency on the estimates to cover its own risk.

[102] The calculation of labour productivity is important to a project because it affects costs. If the productivity model is not robust enough to determine where the project is going, costs can be affected. He indicated that the calculation of the Fort McMurray baseline was necessary to have a baseline against which to compare. CNRL used the contractors' estimate which had the contractor's contingencies included. He stated that this baseline is a standard methodology. It is necessary to create the baseline to have a comparison for forecasting. If actual productivity is over the baseline, then the costs will be affected.

[103] He utilized the quantity adjusted budget (QAB) which reflects the final quantities installed. This is necessary to determine the final amount against the forecast. Because the quantity adjusted budget reflects the final installed quantity, the accuracy is very good. Productivity loss is calculated by the quantity adjusted budget times the rate to equal the actual amounts. If the actual is more than the baseline, then the company will experience a productivity

loss. In his view, the loss of productivity for Fort McMurray was 27%. If Fort McMurray suffers a 27% loss, then the mid-Alberta baseline is 73%. One hour in Fort McMurray would then take 0.73 hours in mid-Alberta.

[104] Based upon his calculations, the adjustment for productivity loss is \$613 million.

Mr. Marco Celis

[105] Marco Celis is a business analyst in the Property Tax department. Mr. Celis was not qualified as an expert.

[106] He started with CNRL in May 2005 in its Financial Department. He moved to the Horizon site for a period of two years and was part of the team working on the rendition. The team collected information, prepared models and the rendition. CNRL staff included cost engineers, project engineers, and consultants as well as Fumio Otsu who conducted the productivity analysis.

[107] Mr. Celis met 13 times with Harry Schmidt. He outlined the number of meetings which occurred between CNRL staff and the municipal assessor. He indicated that CNRL filed its first assessment report on December 12, 2008. This was the rendition filed in 2008 for the 2009 tax year. It was filed to show the assessor the status of the construction of the project.

[108] CNRL sent Mr. Schmidt a status report every month. This outlined rework, delays etc. In 2008, CNRL sent Mr. Schmidt the summary of the productivity model. This was also done in 2009 and 2010. This outlined the summary overall by plant, and then as well the details by business unit, which included:

- Bitumen preparation – 6 plants
- 24 – Extraction
- 26 – Froth treatment
- 61 – Boiler feed water
- 62 – Steam power
- 75 – Main power
- Primary upgrading
- Secondary upgrading
- Hydrogen support units
- Utilities and off-site
- Tank farm

[109] Mr. Celis outlined how the cost rendition was completed, listing the columns and rows contained within the table. Page 1 of the Cost Rendition is the summary of the owner's cost analysis which showed costs as either being assessable, non-assessable, partially assessable or being derived from a cost model. In 2008, all of the backup information to the spreadsheet was provided to the assessor to give him an opportunity to review, ask questions, and for CNRL to provide more information.

[110] In 2008, CNRL reported project cost of \$4.4 billion. This \$4.4 billion was the assessable costs from a total of \$9.8 billion. This \$4.4 billion reflected the claimed pre-investment, owners' cost, delay, etc. which were reported to the assessor.

[111] In March, 2009, CNRL received an assessment notice based upon the 2008 information filed. In September 2009, the assessor conducted an inspection to see the new facilities. Information was sent to the assessor in September 2009. It was based upon the information filed in 2008, but was updated. It was the same model, etc. but with updated information. On March 1, 2010, the Municipality sent CNRL the 2010 tax notice based upon the December 2009 cost rendition filed by CNRL. The Municipality sent CNRL an amended assessment on March 5, 2010. CNRL requested a meeting which occurred April 22, 2010. Mr. Celis advised that in October, 2010, for the first time in five years, CNRL received a special request for information attached to the annual RFI. CNRL responded on December 13, 2010.

[112] CNRL relied upon the Prism report and the FEL (front end loading) summary. The Prism report was based upon September 2009 actual information and a forecast of costs to the completion of the project. The forecast cost at that time was \$10.1 billion. On March 3, 2011 CNRL received the assessment notice. It then received a revised assessment notice March 13, 2011. In 2011, the assessable costs were \$4.2 billion.

[113] CNRL's assessment notice is dated March 1, 2011. The revised assessment notice detail sheet is dated March 11, 2011. The deficiency letter from the Municipality is dated March 23, 2011. CNRL's section 299 request is dated April 27, 2011. CNRL's response is dated April 29, 2011. The Municipality's response is dated May 11 and 12, 2011. CNRL's letter regarding the section 299 response is dated May 18, 2011.

[114] Mr. Celis indicated that the letter from the Municipality showed a new standard from the assessor. CNRL has a team in accounting which provided this information to all municipalities within Alberta in which CNRL operates. This kind of request was something they had not seen before.

[115] The assessor asked for source material supporting the present report. CNRL representatives offered the assessor the opportunity to come to the office and look at any documents he wished, as they did not know what information he was looking for. Therefore they offered him the opportunity to look at the documentation. There were thousands of documents and they felt it would be best if he looked for what he wanted. The assessor did not reply to their response. CNRL was concerned. It did not believe its response was deficient. CNRL had concerns about the Municipality's change in direction. It did not know who was preparing the assessment. The third concern was in relation to confidentiality and whether the information would be shared with other people.

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Excluded Costs

[116] The costs, both included and excluded, were comprised of the following percentages:

- Included Costs – 48.8%
- Owners costs – 15.1%
- Productivity – 6.3%
- Accommodations – 3.1%
- No Improvement – 1.6%
- Freight (Edmonton site) – 1.4%
- Others (35 items) – 4.7%
- Delays – 9%
- Site Preparation – 5.2%
- Travel – 2.1%
- Overtime – 1.4%
- Dams and Dykes – 1.1%

[117] Mr. Celis indicated that the methodology used by CNRL in the preparation of the cost rendition was to exclude from the total costs the pre-construction costs (or front-end loading). Then all construction costs were collected. Those which were not related to the improvement, those which were exempt and those which were abnormal were removed. The remaining costs are assessable costs. He indicated that this is in accordance with CCRG.

Front End Loading

[118] With regard to the front-end loading costs (pre-construction activities), CNRL excluded the feasibility studies, the design based memorandum (DBM) and the engineering design studies (EDS). These costs were excluded on the basis that they are not costs of construction.

Costs for Building and Structures

[119] CNRL also removed from the total project costs the costs of building and structures. The amounts for the building and structures assessment are not in dispute.

Excluded Costs

[120] From the remaining amount, CNRL conducted an analysis to determine its excluded costs.

[121] With regard to the front-end loading costs, Mr. Schmidt made no suggestion that the pre-investment costs would not be allowed. The original Horizon assessment notice of March 1, 2010 recognized the pre-investment costs as a temporary common non-assessable expenditure.

Pre-Investment Costs

[122] There are four rationales for the exclusion of pre-investment costs:

- a. Some of the components are not an integral part of the operational unit and therefore do not fall within the definition of machinery and equipment. In CNRL's view, these components would not be on the property tax roll until a future date.
- b. Certain of the costs for the overbuilt facilities are abnormal which should be excluded to maintain consistency among unregulated properties (CCRG 2.500).
- c. The additional depreciation for these facilities could be recognized due to a loss in value under Schedule D of the Minister's Machinery and Equipment guideline.
- d. Equity under section 293 of the MGA.

[123] Mr. Celis provided details of the facilities for which CNRL claimed pre-investment costs. This list of ten plants is set out at slide 24 of exhibit C69. Two plants identified in slide 25 were identified for pre-investment for which CNRL claimed 19% of the two units as pre-investment cost. Finally, CNRL claimed the value of 22 plants using the sixth-tenths rule.

[124] Mr. Celis went through the CNRL cost rendition. In the electronic version, if a mouse hovers over a cell, it will illuminate a cell note explaining why those costs were non-assessable and contains certain details regarding that item.

[125] The scoping studies were done in 2001. The design based memorandum was done in 2004 and the engineering design studies were done in 2004 as well. Contractors completed detailed engineering after these three studies had been completed. All of this work was done prior to budget sanction for Phase 1 of the Horizon plant. In Mr. Celis' view, until sanction of the budget, none of the costs should be assessable. CNRL claimed the feasibility studies, scoping studies, design based memorandum and engineering design studies to be part of feasibility studies under section 2.100.100 of the CCRG and therefore claim them as excluded costs.

[126] The pre-investment expenditure would increase production to 232,000 barrels per day in Phases 2 and 3 from the 110,000 barrels per day in Phase 1. CNRL chose to overbuild the facilities in Phase 1 to avoid interference costs in the future. In CNRL's view, the pre-investment cost is a temporarily excluded cost until Phase 2 or 3 is operational. Then those costs would later be included. Although CNRL had presented this information to the assessor in 2008 who accepted this approach, in the Municipality's section 299 response, the Municipality indicated that this approach was not contemplated in the CCRG. In May 2012, the Municipality in its report indicated it had accepted 30% of the pre-investment claim as excluded costs.

[127] CNRL calculated the pre-investment using three methodologies.

- a. The first was to use a process engineer's analysis. This was the process engineer's estimation of over-capacity used in ten plants.
- b. The second was a pre-investment analysis used for underground piping in the main pipe rack where there was an anticipation of construction thus leaving vacant land where there was to be a new construction.
- c. The third methodology was the six-tenths rule from the process engineer which was used in twenty-two plants.

[128] Based upon these three calculations, the total pre-investment costs claimed by CNRL was \$918 million dollars. This is 9.4% of the total construction cost.

Owner's costs

[129] The largest category of excluded costs is owner's costs. The top ten excluded costs in the Horizon rendition are:

- Owner's costs
- Delays
- Productivity
- Site preparation
- Camp accommodations (not in dispute)
- Travel (not in dispute)
- Costs not related to improvement
- Overtime (not in dispute)
- Freight costs (not in dispute)
- Dykes (not in dispute)

[130] The rest of the items in dispute are related to:

- Rework
- Overbuilt capacity
- Weather
- Design changes
- Cost spikes
- Temporary facilities
- Software
- Labour availability
- Nightshift

However, these make up a minor percentage of the owner's costs claimed.

[131] CNRL takes the position that owner's costs are excluded due to the definition in CCRG found in section 1.00 that included costs are those actual expenditures made in constructing the facility. Because CNRL had the construction of the facility completed by contractors, it was not

involved in the construction. CNRL has its cost engineers who prepared CNRL's budget. A contractor has its own cost engineer and its own team to build the facility. However, CNRL must protect its own interests and therefore it has a team to prepare the facility for operations. Each plant would have a team. CNRL must store documents and buy software. All of these costs are owner's costs which are not directly related to the construction of the facility.

[132] The costs for these CNRL employees are not costs for construction and, therefore, are not included costs under the CCRG. The owner must follow up in terms of document control, budgeting, and timeline. This is an owner's cost and not related to construction. CNRL characterized as owner's costs those costs which did not meet the definition of property, improvement or machinery and equipment including spare parts for key components or license or patent costs. CNRL also included the administrative costs of having workers prepare the Horizon operations.

[133] Owner's costs was broken down into the following categories:

- Owner's costs - \$771 million
- Commissioning and start-up costs - \$551 million
- Relocation costs - \$83 million
- Natural gas and electricity - \$52 million
- Capital spares - \$60 million
- Licenses and patent fees - \$45 million
- Others - \$95 million

[134] The ratio of owner's costs to total costs was originally about 16%. After the categories had been re-examined and cleared up for things which should be booked under another heading, the total of all owner's costs was about 7% of the total project cost. This was in line for a project of this magnitude. CNRL had included non-assessable items within owner's costs which changed the percentages which caused some concerns. Of the items listed under owner's costs, the commissioning and start-up costs (\$551 million) were not in dispute. The relocation costs (\$83 million) were not in dispute. The natural gas and electricity costs were partially in dispute. The capital spares cost (\$60 million) was not in dispute. The licenses and patent fees (\$45 million) were not in dispute.

[135] CNRL broke down Horizon owner's costs into two major categories:

- a. Overall owner's costs related to the general expenditures necessary to support the overall activities carried on at the Horizon Project;
- b. Owner's costs by business unit relating to owner expenditures necessary to support the specific activities carried on at the individual business unit areas.

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Overall Owner's Costs

[136] According to Mr. Celis, the main areas in overall owner's costs are:

	Description	Amount (in millions of dollars)
1	CNRL Staffing and Development Training - Relocation	76.1
2	CNRL Procurement and Contracts	71.5
3	Loss Prevention and Risk Management General	55
4	Quality Assurance	30.6
5	Design Tools	23
6	Common Services Owner's Costs	19.1
7	Pembina and Accounting Adjustment	64.4
8	Horizon Management	26.6
9	Environmental Monitoring	17.6
10	Stakeholder Relations	7.6
11	Electrical and Instrument Control Engineering	10.8
12	Asset Integrity – Operations	18.6
13	Medical and Health Services	16.7
14	Security	16.8
15	Accounting	21.7
16	Project Control General	23.2
17	Document Control	9.6
18	Information Technology General	16.8
19	Information Technology Business Systems	15.2
20	Business System – JDE Implementation	5.6

[137] Mr. Celis provided an explanation of each of the categories in the overall owner's costs area. The complete listing of the areas for which owners costs was claimed is set out in Exhibit C63, in the Cost Rendition under the tab marked "Overall Owner's" in rows 6 and 7.

Owner's Costs by Business Unit

[138] With regard to owner's costs by business unit, CNRL developed a spreadsheet based upon the 2008 Prism report. The worksheet summarized the business units for the Horizon Project. The columns represent the business units and the rows represent the object account for each business unit. There are 64 object accounts for each business unit. These costs are identified specifically in the Cost Rendition (Exhibit C63) under the Tab "BU Owner's" and the details are not reproduced in this decision.

[139] The owner's cost by business unit relate to owner's costs in relation to a specific business unit providing for monitoring on each of those business units. CNRL presented its methodology to the assessor who raised some questions, but responses were made. The Cost Report of 2009

sets out the owner's costs by business unit. The following table sets out the items listed under business unit owner's costs in dispute:

			Assessable/Non-Assessable	
	Description	Amount (in millions of dollars)	CNRL's Position Excluded (%)	RMWB's Position Excluded (%)
1	Foreign Assignments	\$3.7 million	100%	0%
2	CNRL Staff Salaries and Benefits	\$84.547 million \$13.453 million	100%	15%
3	Contract Services	\$27 million	100%	6%
4	Consultant Services	\$56.254 million	100%	0%
5	Modeling & Simulation	\$430,000	100%	0%
6	General Office	\$2.7 million	100%	41%
7	Clothing & Coveralls	\$68,000	100%	0%
8	Miscellaneous			
9	Natural Gas	\$27 million	100%	50%
10	Electricity	\$24 million	100%	50%
11	Propane	\$1.1 million	100%	?
12	Road Maintenance	\$200,000	100%	0%
13	Site Trailers	\$21 million	100%	60%
14	Facility Support Equipment	\$2 million	100%	0%
15	Rental Vehicles	\$10.7 million	100%	50%

Delay Costs

[140] Delay Costs is the largest item of the 46 items in dispute. CNRL viewed the Delay Costs as being the abnormal costs of construction under section 2.500 of the CCRG. The delays were caused by the heated construction market causing project schedule delays. The delays then caused cascading delays increasing cost overruns. The delay led to additional atypical and non-assessable costs as a result of delays, rework, and associated escalations.

[141] The total claim for delays was \$884 million based upon:

- a. An analysis of the change orders (\$790 million); and
- b. Risk Model (\$94 million)

[142] Mr. Celis provided explanations in his oral testimony for 97% of the amount claimed as Delay Costs. This is summarized as follows:

	Description	Contract Number	Contract Change Order Number	Change Order Amount (in Millions)	Amount Claimed by CNRL as Excluded Costs
1.	Hydrotransport & Extraction (plants 23& 24)	400923	CO40092323/24	\$26	\$20.6
2.			CO40092327	\$12.4	\$11.8
3.	Froth Treatment (plant 26)	401189	CO40118903	\$12.5	\$4.1
4.			CO40118905	\$4.4	\$1.1
5.			CO40118906	\$10.2	\$2.5
6.			CO40118907	\$21	\$19
7.			CO40118908	\$16	\$12
8.			CO40118909	\$13.5	\$3.4
9.			CO40118909-A	\$12.9	\$3.2
10.		401229	CO40122903	\$7	\$1.7
11.			CO40122904/05	\$18.8	\$4.7
12.			CO40122907	\$5.5	\$1.4
13.			CO40122908	\$10.8	\$10.8
14.			CO40122910	\$2.1	\$2.1
15.		400984	CO40098421/22/23/24	\$17.6	\$11.6
16.		401654	CO40165401/02/03/05	\$23.4	\$12
17.		401565	CO40156502	\$2.4	\$0.6
18.			CO40156503	\$5.8	\$5.8
19.	Steam/Power Generation (plant 62) Risk Model				\$1.4
20.		401041	CO40104115	\$4	\$4
21.		401131	CO40113125/31/32/33/34/36	\$157	\$35
22.			CO4012220/23/25/27/28	\$26	\$13.7
23.	Primary Upgrading (plants 31 & 33)	400511	CO40051105	\$160	\$121
24.			CO40051106	\$189.7	\$100.8
25.			CO40051144	\$1.3	\$1
26.	Secondary Upgrading (plants 41-48) Risk Model				\$57
27.		400514	CO40051410	\$40	\$10
28.		400583	CO40058328	\$1.3	\$1.3
29.			CO40058336	\$15	\$15
30.			CO40058374	\$13	\$3.2
31.			CO40058375	\$8	\$2
32.		401223	CO40122321	\$52.4	\$52.4
33.			CO40122322	\$1.4	\$1.4

	Description	Contract Number	Contract Change Order Number	Change Order Amount (in Millions)	Amount Claimed by CNRL as Excluded Costs
34.			CO40122323	\$25.7	\$9
35.		401310	CO40131003	\$106.9	\$106.9
36.			CO40131004	\$98.1	\$59.7
37.		401402	CO40140203/04/06/07	\$10.9	\$4
38.		401493	CO40149302	\$47.9	\$38.9
39.			CO40149304	\$94.9	\$47.4
40.	Support Units (plants 51-59) Risk Model	401370			\$32
41.	Cooling/Heating System/Heating Integration (plant 64)	401370	CO40137013	\$1.7	\$1.7
42.			CO40137015	\$23.6	\$23.6
43.	West Tank Farm (plant 72)	401440	CO40144006	\$15	\$3.7
44.		401583	CO40158303	\$4.1	\$4.1
45.			CO40158304	\$7.7	\$7.7
46.			CO40158305	\$1.6	\$1.6
47.	East Tank Farm Risk Model				\$1.1
48.		401520	CO40152002	\$6.3	\$6.3
49.			CO40152004	\$4.8	\$4.8
50.	Total				\$878.10

[143] To deal with productivity loss on lump sum contracts, CNRL reviewed the issue with cost engineers and consultants. In order to calculate the indirect costs related to productivity, it applied a 10% factor, which was conservative. The factor should be at least 25%. The productivity calculations were calculated by Fumio Otsu. The calculation for the cost for delays was based upon the change order analysis. The delays caused a cascading effect, which were initially caused by an unbalanced market. The owner did not want to delay, seeking to produce oil and gas as soon as possible.

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[144] Mr. Celis went through the costs not related to an improvement as follows:

	Description	Contract Value (in Millions)	Change Order Number	Change Order Value	Excluded Cost Claim (in Millions)
1	Mining Business Unit	\$32.3			
2	East Tank Farm (plant 73)	\$10	CO40144003/02	\$1.3	
3			CO40152403	\$8.4	
4	Labor Disruption Management (plant 97)	\$4.2			\$4.2
5	Common Services (plant 98)	\$49			Fuel Costs: \$24 Janitorial Service: \$10.8
6	Building & Utility Maintenance	\$10.3			
7	Maintenance of Main Access	\$3.6			
8	Hovercraft Pilot Project	\$2.4			
9	Common Services Cost Adjustment (Camp & Bussing)	\$57			

[145] Mr. Celis indicated that the site preparation cost was non-assessable. This was found within the mining schedule valued at \$332 million. Site development at \$135 million was also non-assessable.

[146] There were change orders for utilities and off-sites in this category of \$38 million, which were non-assessable. Bitumen production of \$20 million was a change order within this non-assessable category, as was upgrading at \$1 million.

[147] The following change orders were also claimed as excluded costs:

	Change Order Number	Value of Change Order (in millions)
1	CO40104107	\$8.8
2	CO40092702	\$3.8
3	CO40078402-A	\$3.8
4	CO40125205	\$1.5
5	CO40047218	\$1.0
6	CO40154507	\$1.0

[148] Mr. Celis believed that there was no disagreement by the assessor to CNRL's methodology because the municipal assessor was able to ask questions but did not take advantage of that opportunity.

[149] While Mr. Celis acknowledged on cross examination that without the lawyers, engineers, and various other people there cannot be a project, he continued to argue that the responsibility of the plant remained with the contractor and that the owner's activities were not related to construction. Mr. Celis also agreed that the assessor prepares the assessment after having been provided information from the owner.

Mr. Ken Shaw

[150] Mr. Shaw was qualified by the Board as an expert in industrial assessments.

[151] Mr. Shaw had experience with the assessment of a number oil sands projects within the Regional Municipality of Wood Buffalo, including various Syncrude and Suncor projects. He was contacted by CNRL shortly after it received the revised assessment in 2010. He has worked with CNRL for the last two years. To deal with the valuation of property like the Horizon Project, it is necessary to look at the legislation and regulations, the supporting documentation and the history of the CCRG, the Special Property Assessment Guide (the previous regulation), and equity.

[152] He stated that the assessment of machinery and equipment must be calculated in accordance with the Minister's Guidelines and the CCRG. The Interpretive Guide is not a regulation, but is included on the Minister's webpage. In his view, the assessor should refer to both the CCRG and the Interpretive Guide to the CCRG to determine assessable and non-assessable costs. The scope and purpose of the Interpretive Guide is to assist companies in providing information needed by assessors. An assessor should refer to the CCRG and the Interpretive Guide to come to consistent and equitable assessments.

[153] Assessable costs are the cost of construction. The direct and indirect costs of construction must be either:

- a. those of the contractor of the final price to construct; or
- b. if the owner builds, the owner's direct and indirect costs of construction.

[154] Direct costs include:

- a. the labour and material required to construct the facility including the cost to install production machinery and equipment;
- b. the cost of the subcontractors used to construct the facility; and
- c. the cost of construction supervision.

[155] Indirect costs are not assignable to a unit of production but support the production. They are not attributable to one plant or piece. Those are in the nature of onsite bussing , washrooms, HR, account facilities and construction management.

[156] Owner's costs are not direct or indirect costs because they are not a part of the assembly of the plant. CNRL did a few activities conducted by general contractors. Those were security and trailer purchases. CNRL considered those costs assessable and reported those to the

assessor. However, the costs incurred by CNRL to set up their operating company should not be a cost charged to the project.

[157] In his view, the distinctions between pre and post construction are somewhat arbitrary, but pre-construction includes feasibility studies, environmental studies and studies leading to the determination of approvals. Cancellation charges would also be covered under pre-construction costs. In his experience, DBM and EDS have never been reported as assessable and are not assessed in Wood Buffalo. Further, personal property is not assessed. This includes patents and license fees. Consumable equipment is also excluded. Water conveyance systems, such as water treatments and pumps, and waste water treatment are generally excluded. Rework is also excluded.

[158] The specific documentation which a company puts forward to substantiate a claim for abnormal costs can vary, depending upon the nature of the project. Companies can go to productivity experts or engineers, but there is no one method to put these costs together. In his experience, the assessor tries to gain a general understanding of the project to determine its nature, how it has been contracted, the schedule and the assumptions and the design in costing of the facility, and assumptions related to productivity.

[159] The sources of data would be:

- a. directly from actual construction cost reports;
- b. from a secondary cost report – the project cost with modifications; and
- c. from the costing models for reworking and cost extensions, for instance. This would be done on the basis of modeling prepared by experts.

[160] In his experience, the owner and assessor work as a team and to the extent to which they work together depends upon the complexity of the project and information sources. Generally speaking, a company works with the assessor to ensure that the cost rendition they are preparing meets the criteria set by the assessor.

[161] An assessor must do an assessment in a fair and equitable manner. The assessor can bring different assessment concepts up, but generally the assessor discusses those changes with the industry representatives and informs them of the changes and applies those changes to all of them.

[162] In CNRL's case, the owner's cost seemed to be high at 15%. After CNRL went through the owner's cost again, they pulled out other non-assessable categories and the owner's costs were at 7% which fell in line with his experience for other projects.

[163] The CNRL facility is an integrated mine with extraction and upgrading, so it would have higher costs than a SAGD or pipeline. The largest cost would be transporting materials and labour which would result in a bigger productivity differential between Edmonton and Fort McMurray.

[164] CNRL had increased costs due to unproductive labour because there was a shortage of skilled labour in Canada. CNRL had to go to different areas of the country or outside of Canada

to obtain labour which was not necessarily familiar with the construction of oil sands projects. There was a shortage of qualified trades people and a high turnover. In his view, a 45%-50% range of non-assessable costs is not uncommon in the Fort McMurray area.

[165] The CNRL cost rendition was one of the most comprehensive he had seen presented to an assessor. CNRL had taken the process seriously and took the initiative to analyze the costs so that it could be developed in a reasonable manner and ensure that the CCRG was met. He noted that CNRL had not received any written documentation noting particular deficiencies with the reports.

[166] In relation to the 46 accounts, he stated that all of the items contained within the list of 46 items are normally encountered within an assessment. Due to the complexity and size of the CNRL project, it was very difficult to prepare a cost rendition after the fact and that it had to be done as the project was being completed.

[167] In relation to the higher non-assessable costs, he indicated that there were costs for the mine which included ripping out trees and dewatering the site. This project is the furthest away from Fort McMurray and it is the first time that CNRL had developed such a plant. Therefore, CNRL expended money setting up the company to operate the plant where it was constructed. In his view, there was a large percentage of pre-construction because CNRL had pre-invested in the phase 2 and phase 3 parts. Further, there were large commissioning costs.

[168] In his view, an assessor must fairly and equitably apply the valuation standards and must follow the procedures and guidelines in the CCRG. The assessor must use the costs reported, but he does not need to accept them in their entirety. An assessor should address concerns with the cost report prior to the assessment being prepared and if the assessor receives a submission that does not meet the requirements, it should be returned to the company representative with the detailed description of the deficiencies. In his view, the OSDG report was outside the regulated process.

[169] If the assessor believed that the assessment cost rendition was deficient, he should have sent a list of detailed deficiencies to the assessed person and asked for further information. In commenting on the 2010 assessment notice, he stated that the assessor should not have increased the assessment by \$1.4 B. If the assessor had sent a list of deficiencies, it would have allowed the process to continue. The assessment could be adjusted the next year and then the taxpayer would have the right to appeal or to accept it.

[170] He stated that the owners were setting up their commercial operations on site. It was their first major oil sands project and all of the accounting and administration costs were booked directly at the site. They were undertaking hiring and training of personnel for the full time operation of the Horizon Project. This led to above normal owner's costs. CNRL was acting as an owner to ensure that it got what it had paid for. CNRL expended funds to ensure that it would know how to operate the project once it had been completed constructed.

[171] In his view, the cost overruns were non-assessable. The majority of the cost overruns were due to execution. The scope growth was very low at 2%.

[172] In his experience, a change order analysis involves volumes of documents, and he would expect the company to sit with the assessor to show the analysis. CNRL personnel had put a description in the cells which was a summary of the change orders including references to the CCRG category. There was a heated labour market in Alberta in 2004 – 2008. Due to a high demand for experienced labour, CNRL incurred a labour supply shortage and a spike in the cost of materials. He was not surprised by the productivity loss claim. Productivity claims are based on an estimate of the loss productivity between the Edmonton area and the Fort McMurray area. This is in addition to the quantification and excess productivity that is beyond what is to be considered normal to construct a facility in the Fort McMurray area as a result of abnormal causes.

[173] In his view, the \$918 million for pre-investment expended by CNRL is an abnormal cost which should be removed to maintain consistency among regulated properties. In his view, the costs for the pre-investment become assessable when the next stages start up. He stated that the Municipality's position on pre-investment was to remove it in the form of depreciation in Schedule D. He stated that he did not agree with that methodology. He thought that the application of the 6/10 rule as put forward by Mr. Celis was a fairer way to treat pre-investment.

Respondent

[174] The Municipality sought to uphold the revised assessment. It called two witnesses: Dr. Ed Thompson and Mr. John Elzinga. Neither of these witnesses were the assessor who prepared the amended assessment which is under appeal.

Dr. Ed Thompson

[175] Dr. Thompson was qualified by the Board of an expert to give opinion evidence in the area of mathematical modelling, risk analysis and project engineering.

[176] CNRL had no objections to Dr. Thompson's qualifications to give opinion evidence on mathematical modelling and risk analysis and he was so qualified. CNRL had objections in relation to Dr. Thompson's qualifications to give opinion evidence about project engineering. The Board determined that it would accept Dr. Thompson's opinion evidence in the field of project engineering, but would keep in mind that project engineering is a broad range of activities and that the witness had experience in all of those areas.

[177] CNRL also expressed concerns about the independence of Dr. Thompson. Having heard the qualifications of Dr. Thompson, the Board had no difficulty in qualifying Dr. Thompson as an expert in the three areas sought by the Municipality. The Board found that the relationship which Dr. Thompson had with the Municipality to assist both Mr. Schmidt and Mr. Elzinga did not detract from the scope of his qualifications to give expert testimony before this Board. However, the Board is aware of that relationship between Dr. Thompson and the Municipality and therefore has carefully scrutinized the evidence given when coming to its determination. The Board advised that it would watch for evidence which went beyond his report and moved into evidence regarding his assistance with the preparation of the assessment.

[178] Dr. Thompson stated that cost overruns are common in the development of oil sands projects. His evidence was that overruns of between 50% - 100% are common and at 43%, the Horizon Project was at the lower end of the range. Dr. Thompson agreed that the estimate prepared by CNRL was a Class 1 estimate pursuant to the AACE standards. However, he indicated that the estimate was still subject to estimating errors.

[179] Dr. Thompson indicated that it was necessary to define normal or typical conditions. The Horizon Project costs should be reviewed against normal or typical conditions in order to determine the abnormal costs. He stated that it is typical to expect and to experience cost overruns and that the only way to assess what is an abnormal cost is to find the baseline of normal or typical conditions.

[180] Dr. Thompson stated that CNRL's focus was on the original cost estimate of \$6.8 billion. However, due to the possibility of estimating errors, the \$6.8B was not an estimation of normal. CNRL presented evidence to show that inflation from 2005 – 2008 was approximately 20%. In his view, if the original cost estimates had been inflated by this rate, the claims for abnormal costs would have been lower. In his view, CNRL measured abnormal costs as any cost over that in the internal budget (the baseline or sanction budget) without consideration of normal or typical costs.

[181] The CNRL cost estimate was not presented as a range. To overcome this limitation the Municipality utilized estimating accuracies recommended by AACE so that costs associated with normal activities could be incorporated. In Dr. Thompson's view, CNRL's confidence in its internal project cost estimate was unfounded and deviated from normal construction practice. The capital estimates are subject to estimating errors and resultant tolerances and this concept was absent from the CNRL Horizon analysis. The project cost increases were, in his view, more the result of inaccuracies in the Horizon estimate than due to abnormal construction costs.

[182] The change orders, revised estimated costs, procurement deviations, contract change orders, pricing changes, delays, scope changes etc. are not necessarily abnormal costs. However, Dr. Thompson did concede that having an only 2% scope growth for a project the size of CNRL was amazing.

[183] Dr. Thompson went through the electronic copy of the cost rendition in Exhibit C63 remarking on some inaccuracies contained within the cost rendition. He stated that there were embedded problems with the data flow and numerical errors. His conclusion in relation to this area of evidence was that there was significant impact to the data structure used by CNRL which might have caused errors. In his view, the corrected cost rendition contained data limitation errors as well which had not been corrected in that version.

[184] Dr. Thompson went through various lines of the summary (of Exhibit C63) pointing out that, in his opinion, many of the costs claimed were construction costs and common activities in engineering. He indicated that many of the descriptions contained within the spreadsheet were construction management which is what engineers do all the time and, therefore, should be considered included costs. Dr. Thompson spent a significant portion of his testimony going through these various costs. While the Board made notes and studied those examples, it will not

reproduce those examples within the summary of Dr. Thompson's evidence. For the purposes of this summary, the Board finds it sufficient to note that Dr. Thompson's theme during this portion of his testimony was that the owner's activities were those which would be supervisory in nature and which would, in his view, be considered ordinary construction costs.

[185] Dr. Thompson then turned to a review of CNRL's claim to exclude the costs for the EDS and DBM. In his opinion, the documents are used in a number of ways. They are not replaced but refined. They facilitate what occurs in the bidding and facility construction activities. In his view, if a component facilitates construction it should be considered construction costs. He stated that the EDS was not complete when sanction was given. Further, the purchase of long lead items occurred before sanction budget. The EDS and DBM facilitated the purchase of those long lead items, thus supporting his argument that these costs should be part of construction.

[186] Dr. Thompson also reviewed the change orders. Again, he provided many examples in which he examined specific change orders. Although the Board took notes and spent time during its decision process in examining his evidence, the Board will not reproduce each examination of the change orders. There were several themes that ran through Dr. Thompson's examination of the change orders.

[187] The first theme was that there was a limitation in the process because the raw data was never exposed in the cost rendition. As a result, it was not possible to go through the data to get comfort with the process. He expressed concern about this limitation in the change order analysis.

[188] He also stated that there were limitations in the cost report which limited confidence in accepting the change order amounts at face value.

[189] CNRL did not trace delay costs separately, but had prepared an analysis. He expressed concern about how the data was sourced because it was not captured in CNRL's financial system. He stated that delays on a number of the non-critical paths should not affect the overall schedule and questioned the amount put forward for delays as a result.

[190] In his review of the change order claims, there was nothing contained within them which changed his mind that much of the claim (see Exhibit R47 and R48 for specific details) was 100% construction costs. In his view, the limited information contained in the cost rendition did not justify reliance upon those words to be accepted at face value for claims of significantly large amounts. For example 62.5 million dollars was asked to be justified on the basis of three words. In this regard, Dr. Thompson referred to the internal report of CNRL located in Ms. Zeidler's report at page 9 which stated that the internal reviewers found it difficult to substantiate the delay costs approved from CNRL change order documents as no change orders were raised specifically for delays. He stated that his confidence was dented as a result. He added that the Board should not place reliance upon the change order analysis as it was not clear what information was being reviewed to come up at the abnormal cost claim.

[191] In his opinion, the information provided did not convince him that the claim was not 100% construction costs.

[192] Dr. Thompson took the Board through several examples in the change order analysis. His conclusion in each of these was that the costs contained therein were construction costs and therefore should be included costs.

[193] Dr. Thompson commented specifically upon the productivity analysis conducted by Mr. Otsu. He stated that in his view it demonstrated significant and considerable cost engineering errors in the rendition.

[194] Dr. Thompson gave evidence about the Gulf Coast Model used for the purpose of estimating. He stated that the standard in Alberta is a mid-Alberta cost.

[195] In his evidence, he disputed the formulas which were set out by Mr. Otsu replacing them with the following:

Fort McMurray Abnormal Productivity Loss	=	Actual Cost	-	Fort McMurray Baseline Budget
Fort McMurray Baseline Budget	=	Mid Alberta Baseline Budget	+	Fort McMurray Productivity Adjustment
Total Non-Assessable Productivity Loss	=	Fort McMurray Abnormal Productivity Loss	+	Fort McMurray Productivity Adjustment
Total Non-Assessable Productivity Loss	=	Actual Cost	-	Mid-Alberta Baseline Budget (Adjusted for Growth)

[196] Mr. Otsu's analysis defined Fort McMurray as 1.0 which was an error. The appropriate methodology in Dr. Thompson's view is to use mid-Alberta as the baseline and then the adjustment moves outwards to the location of construction (in this case Fort McMurray). He stated that the adjustment factor should be 1.27. In his view, this analysis is supported by looking at the magnitude in the AYM in the Minister's guidelines.

[197] Dr. Thompson did not accept hyperinflation as a rationale for abnormal costs. He stated that economic conditions exist which must be accounted for in the calculation but that only deviations greater than normal would be an excess cost.

Mr. John Elzinga

[198] The Municipality sought to have Mr. Elzinga qualified to give opinion evidence in the assessment of machinery and equipment, which involves the interpretation and application of the machinery and equipment guidelines and the CCRG.

[199] CNRL challenged Mr. Elzinga's qualifications as an expert because, while he had the qualifications of an assessor, he had no publications, no history of giving testimony before boards or tribunals and no history of being qualified as an expert. CNRL objected to Mr. Elzinga being qualified as an expert due to a concern about his independence from the Municipality. CNRL's position was that Mr. Elzinga lacked objectivity and was essentially an advocate on behalf of the Municipality.

[200] The Board reviewed the qualifications of Mr. Elzinga and found that he is qualified as an industrial assessor of machinery and equipment. The Board did not dispute his qualifications as an expert and his ability to give opinion evidence, but would have regard for his role with the Municipality. In reviewing Mr. Elzinga's responses to the questions from CNRL, the Board was of the opinion that his involvement in doing the audit assessment or independent third party check caused him to have some knowledge of matters such as the Mid-Alberta baseline and the CCRG. The Board was satisfied that his involvement was his first contact and would consider his degree of independence.

[201] Mr. Elzinga stated that his role before the Board was not to justify the assessment put forward by Mr. Schmidt. He provided an independent review of the cost rendition.

[202] In his evidence, Mr. Elzinga provided an overview of the process by which machinery and equipment is assessed, starting with the provisions of the *Municipal Government Act*, the Matters Relating to Assessment Taxation Regulation, the use of the CCRG and the Minister's Guidelines, and in particular, Schedule A which provides that the rates are to be determined through the application of the CCRG. Mr. Elzinga indicated that the CCRG does not identify cost increases from inflation as an excluded cost. Further, in the Minister's Guidelines, in the definition of cost factor, it converts from the year constructed to the cost in 2005. If the cost increases from inflation were deducted before multiplying, the resulting base cost would be less than the 2005 base cost reflected in the rates set out in the Schedule A of the Minister's Guidelines.

[203] Mr. Elzinga indicated that in looking at the assessment year modifier, Mr. Stowell, Mr. Celis, Ms. Zeidler and Mr. Shaw all suggest that the inflationary increases should be reduced as abnormal costs. However, the CCRG does not have costs of inflation as abnormal or excluded costs.

[204] In his review, all construction costs are to be reported to the assessor including the FEL costs relating to engineering, supervision or procurement. In his view, what is important is the activity and the money spent, not whether the activities are performed by a contractor or the owner. If an estimate is to be used, the estimate accuracy needs to be taken into account. Mr. Elzinga disputed the narrow interpretation of construction cost put forward by Mr. Celis. In his

view, Mr. Celis' interpretation of construction costs excluded many indirect and owner's costs which the CCRG identifies as included costs.

[205] Mr. Elzinga took the Board through the provisions of the CCRG. He stated that the only reference to "mid-Alberta" in the CCRG's is found in Section 2.500.200 in relation to transportation costs.

[206] Mr. Elzinga took the Board through his analysis of the cost rendition. He indicated that where there were abnormal or excluded costs, for instances to take into account the shortage of labour affecting productivity and delays, he made allowances. He did not accept that the claims should be measured from differences to the CNRL sanction budget. He attempted to measure these costs against actual costs.

[207] Mr. Elzinga acknowledged that the value of the secondary crushers should be removed from the included costs. This amount is \$ 50,238,904.

[208] Mr. Elzinga then took the Board through his review and various portions of Exhibits R47. The summary of his position is found at Exhibit R95 and R100.

PART D: DECISION

[209] The Board has decided to make a change to the assessment as set out in the table below. The Board has determined that the total project costs are \$10,732,493,000.

[210] From the total project costs, the value of building and structures must be removed (\$364,430,000).

[211] From the total project costs, the value of the FEL (pre-construction) must be removed (\$597,948,000).

[212] From the total project costs, the value of the pre-investment must be removed (\$918,541,000).

[213] From the total project costs, the value of the secondary crushers must be removed (\$50,238,904).

[214] From the total project costs, the value of the co-generation plant (linear) must be removed (\$125,637,248).

[215] From the total project costs, the value of the uncontested 46 accounts must be removed. (Note: the Board has not calculated this number, but the number can be found by adding the uncontested accounts).

[216] From the total project costs, the values of the contested line items as determined by the Board must be removed. The value for the contested line items is set out in the table below. The items marked with a "*" are those items which are based, at least in part, upon a percentage of

the total project costs. Because the Board has found that the total project costs are \$10,732,493,000, the numbers found in accounts 12, 13, 25, 29 and 45¹ must all be adjusted to reflect the correct percentage of total project costs.

[217] The costs set out in Account 25 were not contested. However, that amount must be recalculated based upon the Board's finding in relation to total project costs.

[218] In the table below, the Board has set out the number as identified in Exhibits C98 and R102, but this number must be appropriately calculated by the parties and the Board reserves jurisdiction to address any issue arising from this calculation, or the calculation of the assessment arising from its determination of total project costs, excluded costs or abnormal costs.

Description	Amount for 46 Line Item analysis	Final Amount (Amounts in red denoting amount to be deducted from Total Project Costs)
Total Project Costs		\$10,732,493,000
Building and Structure		\$ 364,430,000
Value of Machinery and Equipment		\$10,368,063,000
Pre-Construction Exclusion (FEL)		\$ 597,948,000
Pre-Investment		\$ 918,541,000
Contested Excluded Costs: (examination of contested 46 line items)		
#4 Costs to clear, drain, level, shape and finish site ready for construction	\$503,481,000	
#9 Abnormal exchange rates	\$93,000	
#12 Design changes	\$36,845,000*	
#13 Costs relating to rework unless original efficiency or capacity increases	\$89,440,000*	
#19 Domestic sewage treatment and disposal systems (plant & camps)	\$919,000	
#23 Adequate labour force readily available at the worksite is assumed	\$2,004,000	
#24 Unproductive labour	\$418,026,000	
#26 Added costs due to night	\$1,105,000	

¹ The Board found \$0 for account 45 and recognizes that mathematically there is no need for any adjustment based on total project costs (anything times zero is zero), but has marked it with an asterisk for consistency.

Description	Amount for 46 Line Item analysis	Final Amount (Amounts in red denoting amount to be deducted from Total Project Costs)
shift work (i.e., light plants, etc.)		
#28 All costs of exercise programs to improve worker productivity or safety	\$212,000	
#29 Extra costs resulting from labour material or equipment delays	\$883,968,000*	
#30 Abnormal costs due to inclement weather conditions (i.e., temperature, snow/rainfall)	\$18,469,000	
#32 Abnormal rental/freight costs (i.e., heavy lift cranes in short supply)	\$2,381,000	
#34 Computer Hardware/Software not used to operate the plant	\$7,974,000	
#36 Temporary facilities and services	\$275,000	
#39 Interference costs (i.e., extra costs due to existing plant facilities)	\$776,000	
#40 Over built or under utilized improvements	\$7,074,000	
#42 Business Unit Owner's costs (not directly related to construction activities)	\$807,527,000	
#42 Overall Owner's Costs (not directly related to construction activities)	\$586,816,000	
#45 Material or Equipment Cost "Spikes"	\$0*	
#46 Project costs not directly related to the Construction of "Improvements"	\$160,167,000	

PART E: REASONS

General Comments

[219] This appeal concerned an assessment complaint filed by CNRL against an amended assessment for machinery and equipment. The revised assessment amount is \$3,438,633,520. CNRL sought to persuade the Board to decrease the assessment.

[220] The CARB's jurisdiction is provided for in section 467 of the MGA. The CARB must determine whether it should change the amended assessment for the Complainant.

[221] The Board found this to be a challenging assessment complaint hearing due to the unique circumstances. The Complainant put forward its case, providing the Board with evidence about the basis upon which the Complainant had prepared its cost rendition it had submitted to the Municipality. The Complainant put forward six witnesses, including CNRL representatives (Ms. Zeidler, Mr. Minter and Mr. Celis), as well as three experts; Mr. Otsu on project management, budgeting and labour productivity, Mr. Stowell (preparation of the cost rendition for the Horizon Project) and Mr. Shaw (machinery and equipment assessment).

[222] However, the Municipality did not call the assessor who prepared the assessment (Mr. Schmidt), who was working under contract for the Municipality² nor did it call the Municipal Assessor.³ The Municipality did not present evidence about how the amended assessment was prepared. Rather, the Municipality put forward two witnesses who were both qualified as experts - Dr. Thompson, on mathematical modelling, risk analysis and project management, and Mr. Elzinga on industrial assessments. Dr. Thompson's evidence outlined what he believed were the flaws in CNRL's cost reporting. He also gave opinions on engineering and modelling matters, including the productivity loss calculations conducted by Mr. Otsu. In the preparation of the co-authored reports (R47 and R48), Dr. Thompson provided mathematical and engineering analyses and comments, some of which Mr. Elzinga relied upon in preparing his independent assessment of the Horizon Project. It was not always clear which witness authored which paragraphs in the reports. Further, the conclusions and opinions in the reports were consistently attributed to the Municipality (RMWB) rather than to one or both of the experts.

[223] The Municipality sought to have the CARB confirm the amended assessment of \$3,438,633,520 (minus a minor adjustment for a deduction that had been agreed to by both parties). Its position was that the reports prepared by Dr. Thompson and Mr. Elzinga were an independent analysis, whose purpose was to examine the cost rendition prepared by CNRL and to prepare an independent assessment based on information that would have been available to the assessor in January 2011. Mr. Elzinga's independent assessment supported the amended assessment on the roll (it was within 2-3%).

[224] This is the first time that the Board has had placed before it a third party explanation of an assessment, but without having the benefit of testimony from the assessor who prepared the

² At the time of the hearing, Mr. Schmidt, the industrial assessor who had prepared the assessment, was no longer under contract with the Municipality. The Complainant also did not call him as a witness.

³ Mr. Van Waas, who was the Municipal Assessor in March 2010, retired prior to this hearing.

roll. The absence of the assessor responsible for the roll created a number of procedural objections throughout the course of the hearing which increased both the complexity of the hearing and the length of the hearing. This unique factual matrix required close examination to ensure that the Board is assessing the correct figures and to weigh the evidence placed before it.

[225] The evidence before the Board was very complex. CNRL's witnesses spend a great deal of time going through Exhibit C63 – CNRL's cost rendition, both in the electronic version and the paper versions (found at Exhibit C70 and C83). There were errors both in these spreadsheets – which required replacement versions to be put before the Board and leading to confusion as to which was the appropriate column or line. In addition, there were errors identified by the witnesses for both parties in their own reports which also created a degree of unnecessary complexity in this hearing.

[226] Further, there was no consistency of language used by the parties. For example, at times, the Board was referred to a certain number which should form an included cost, and at other times, a number which should be excluded. In some evidence, the Board was referred to dollar amounts, and at other times, the evidence was referred to by percentages. This failure to simplify the evidence and to use consistent terminology increased an already complex hearing and decision making process.

[227] Finally, the Board notes that some of the phrases used by CNRL in its evidence (like front-end loading and pre-investment) are not terms found in the CCRG even though they might be commonly used in the industry. This also caused time to be spent ensuring that the concepts behind CNRL's choice of words was clear.

[228] Finally, despite the repeated requests by the Board (starting at the beginning of the hearing) for the parties to present to the Board those items in dispute, it was only on the 2nd last day of the hearing, with the presentation of Exhibits C98 and R102 that the parties showed the Board in a summary fashion the differences in position in a way which assisted the Board in focussing on the disputed items. Had the Board had such evidence during the course of the hearing, this would have been of great assistance to the Board, and perhaps to the parties and witnesses in focussing their evidence on what was at issue. Further, despite the Board's direction that the parties agree upon the areas and amounts in dispute, C98 and R102 did not represent full agreement, in that there were a number of instances in which the numbers in one party's document did not mirror the number if the other party's document.

[229] This is the factual matrix in which the Board had to make its decision.

Background

[230] CNRL management approved a sanction estimate for the Horizon Project in February 2005, following a regulatory approval process. Construction of the Horizon Project occurred from 2004 – 2008. During this time, with ongoing interaction with the industrial assessor, representatives of CNRL worked to create the cost rendition, populating the excel spreadsheet with more and more data as the costs became known.

[231] Although the Horizon Project was scheduled to go on-stream in 2008, due to delays, it did not become fully operational until 2009.

[232] In 2008, CNRL filed its first cost rendition with the Municipality and entered a tax agreement in 2009.

[233] CNRL sent its 2009 cost rendition to the Municipality in December 2009. This resulted in a 2010 assessment which was revised five days later. CNRL filed a complaint in relation to the 2010 amended assessment. The complaint in relation to the 2010 tax year has been under a court ordered stay until very recently and that complaint has not yet been heard on its merits.

[234] This Board is dealing only with the appeal of the amended 2010 assessment for the 2011 tax year.

Statement of the Issue

[235] The general “issue” before the Board can be stated as simply as “Should the Board make a change to the amended assessment or decide that no change is required”? (MGA section 467(1), (3) and (4)) In making a determination to change the assessment, the Board must first determine the assessable costs. The assessable costs will then be used to calculate the assessment number. Upon determination of that number, the Board will be able to make a determination to change or not change the assessment.

[236] In order to answer the question of whether or not to make a change to the assessment, the general “issue” must be broken down into smaller inquiries which must be answered before the Board can complete its decision. The Board has determined that the inquiries to be answered are as follows:

1. What is the methodology to calculate an assessment for machinery and equipment?
2. What is the total project cost?
 - a. Should costs attributed by CNRL to Front-End Loading (FEL), for example, feasibility studies, engineering design studies and design base memorandums, form part of the total project costs?
 - b. If the FEL is to be included as part of the total project costs, are any of the FEL excluded costs for assessment purposes?
3. Are the costs incurred by CNRL for “pre-investment” an excluded cost under the CCRG?
 - a. Does the equipment claimed as pre-investment meet the definition of “machinery and equipment”?
 - b. If it meets the definition of “machinery and equipment”, is there an exemption in CCRG to permit the exclusion of these pre-investment costs?

- c. If the cost for the pre-investment is part of the included costs, how is it to be valued?
- d. What is the application, if any, of Schedule D (additional depreciation) for the ‘pre-investment’?
- 4. Does the evidence support the exclusion of costs as set out in the 46 Accounts?
- 5. How is equity addressed in this appeal? Who bears the onus?

1. What is the methodology to calculate an assessment for machinery and equipment?

[237] An assessor must assess “property” which may include an improvement to a parcel of land. Improvement is defined in section 284(1)(j) of the *MGA* as including “machinery and equipment.” Machinery and equipment is defined in section 284(1)(l) of the *MGA* as having the meaning given to it in the regulations.

[238] Section 1(j) of the *Matters Relating to Assessment and Taxation Regulation*, A.R. 220/2004 (MRAT) defines “machinery and equipment” as follows:

- (j) “machinery and equipment” means materials, devices, fittings, installations, appliances, apparatus and tanks other than tanks used exclusively for storage, including supporting foundations and footings and any other thing prescribed by the Minister that forms an integral part of an operational unit intended for or used in
- (i) manufacturing
 - (ii) processing
 - (iii) the production or transmission by pipeline of natural resources or products or by products of that production, but not including pipeline that fits within the definition of linear property in section 284(1)(k)(iii) of the Act,
 - (iv) the excavation or transportation of coal or oil sands, as defined in the *Oil Sands Conservation Act*,
 - (iv) a telecommunications system, or
 - (v) an electric power system other than a micro-generation generating unit as defined in the *Micro-Generation Regulation* (AR 27/2008),

whether or not the materials, devices, fittings, installations, appliances, apparatus, tanks, foundations, footings or other things are affixed to land in such a manner that they would be transferred without special mention by a transfer or sale of the land;

[239] Machinery and equipment is a regulated assessment for which the assessor conducts an assessment in accordance with section 9 of MRAT.

Valuation standard for machinery and equipment

9(1) *The valuation standard for machinery and equipment is that calculated in accordance with the procedures referred to in subsection (2).*

(2) *In preparing an assessment for machinery and equipment, the assessor must follow the procedures set out in the Alberta Machinery and Equipment Assessment Minister’s Guidelines.*

(3) For the purposes of section 298(1)(z) of the Act, an assessment must be prepared for machinery and equipment that is not part of linear property as described in section 284(1)(k) of the Act, and the assessment must reflect 77% of its value.

[240] The Minister's Guidelines are defined at section 1(1.1) of MRAT as follows:

(1.1) "Minister's Guidelines" means the Minister's Guidelines established by the Minister, including the following:

- ...
 - (iv) Alberta Machinery and Equipment Assessment Minister's Guidelines;
 - ...
 - (vi) any of the above guidelines that are referred to in
 - (A) the Matters Relating to Assessment and Taxation Regulation (AR 289/99), and
 - (B) the Standards of Assessment Regulation (AR 365/94);
 - (vii) the 2005 Construction Cost Reporting Guide established by the Minister and any previous versions of the Construction Cost Reporting Guide established by the Minister;

[241] The assessment of machinery and equipment is calculated by establishing a base cost, then multiplying it by the appropriate assessment year modifier, then by the appropriate depreciation factor, and, if applicable, adjusting for additional depreciation. This can be reflected as:

$$\text{Assessment} = \begin{matrix} A \\ \text{(Base Cost)} \end{matrix} \times \begin{matrix} B \\ \text{(Assessment} \\ \text{Year Modifier)} \end{matrix} \times \begin{matrix} C \\ \text{(Depreciation} \\ \text{Factor)} \end{matrix} \times \begin{matrix} D \\ \text{(Additional} \\ \text{Depreciation)} \end{matrix}$$

[242] Section 2.000 of the 2010 Alberta Machinery and Equipment Assessment Minister's Guidelines (Minister's Guidelines) provides that the cost factors in Table 1 and the formula contained with it are used to determine the base cost for machinery and equipment that is not described in schedule A. The formula is described as:

$$\text{Base Cost} = ic \times cf$$

Where

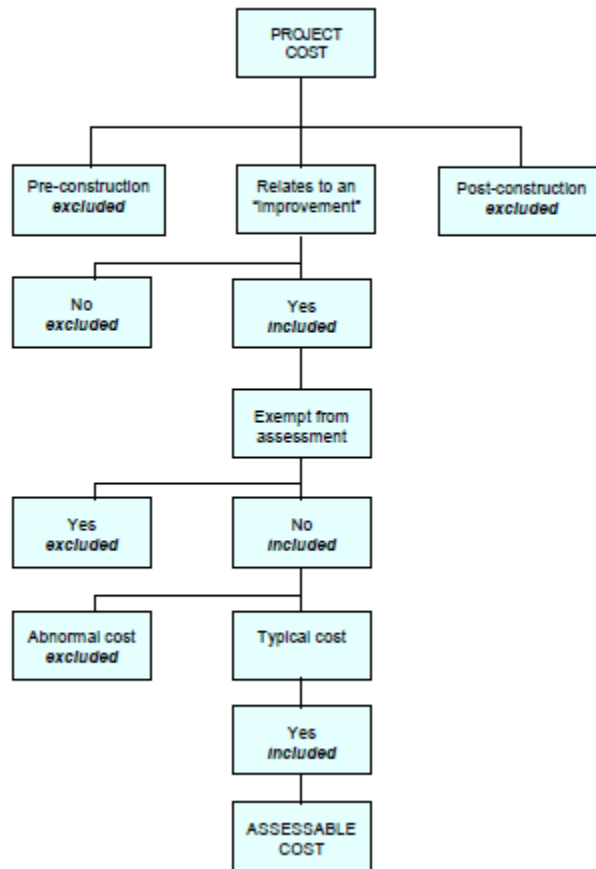
ic equals the cost of machinery and equipment in accordance with the 2005 Construction Cost Reporting Guide.

cf equals the cost factor to convert the cost of the machinery and equipment from the year it was constructed to its cost in 2005.

[rest of page left blank intentionally]

[243] The 2005 Construction Cost Reporting Guide (CCRG) (exhibit C40, Tab 5, page 7) provides a diagram giving a clear overview of the steps to be followed in assessing machinery and equipment.⁴

FIGURE 1 FROM PROJECT COST TO ASSESSABLE COST



[244] In brief, the first step requires the determination of the project cost. From the total project cost, pre-construction costs and post-construction costs are to be excluded. If the costs relate to an “improvement”, they are to be included. If not, the costs are to be excluded. Finally, there is an examination to determine whether any costs are exempt from assessment or are abnormal costs as identified under the provisions of the CCRG. If the costs are exempt, they are excluded. If they are not exempt, they are included. If the costs are typical costs, they are included. If they are abnormal costs, they are excluded. The resulting amount forms the assessable costs, which forms the amount under “A” identified in paragraph 241.

2. What is the total project cost?

[245] In its calculations, CNRL has removed from the total project costs those costs which it has attributed to front-end loading (FEL), namely, feasibility studies, engineering design studies,

⁴ This diagram is also found in the Interpretive Guide to the CCRG, found at Exhibit C40, Tab 6, page 5.

and design based memorandums. CNRL submits that the total project costs are \$10,134,528,000 because it should not include \$597,948,000 (Rounded) for FEL.

[246] By contrast, the Municipality's position is that the total project costs are \$10,732,493,000. The Municipality urged the Board to find that the costs for FEL should be included as part of the total project costs. The Municipality stated that the Board may later exclude the FEL costs pursuant to sections of the CCRG, but there was no basis to remove the FEL costs from the total project costs. The inclusion of the FEL costs as part of the total project costs would affect some of the ratios CNRL used as part of its calculations. The Municipality accepted \$362,948,000 of the \$597,948,000 FEL costs as CCRG excluded costs.

2a. Should costs attributed by CNRL to Front-End Loading (FEL), for example, feasibility studies, engineering design studies and design base memorandums, form part of the total project costs?

The total FEL reported by CNRL was \$597,947,967 made up of amounts in 71 cost accounts including DBM, EDS, licenses, employee costs, mining costs and access road and bridges. This amount was not included in the total project cost reported to the assessor although details of its components were provided.

[247] During her testimony, Ms. Zeidler stated that in 2004-2005, prior to the project sanction by CNRL's Board of Directors, CNRL undertook extensive analyses that included pre-feasibility and feasibility (or scoping) studies to determine whether the project was viable, what technology was most appropriate, and whether the timing and location of the proposed project were appropriate for such a development and "how it could all be achieved." As part of the pre-construction studies, the design base memorandum (DBM) and the engineering design specifications (EDS) were undertaken for most of the facilities. These costs were booked by CNRL as pre-construction or FEL costs. CNRL took the position that because the costs were incurred prior to project sanction or approval, the costs were never considered as part of the construction cost. Although CNRL did not include these costs as total construction costs, CNRL did report these numbers separately to the assessor.

[248] During his testimony, Mr. Celis outlined these amounts and provided a breakdown by Business Unit⁵. He included these costs in the "project definition" phase of development. In his view, FEL was not a cost of construction because once a project is sanctioned the contractor undertakes detailed engineering. The contractor's design costs would be a cost of construction, while those of the owner are not.

[249] Both Mr. Stowell and Mr. Shaw stated that in their experience with similar facilities, costs for FEL are unrelated to construction costs. Mr. Shaw stated that since the costs were not part of construction costs, they did not need to be considered under the CCRG. In his view, the CCRG specifically states that studies that evaluate the viability of a proposed project are excluded costs. In his dealings with Mr. Schmidt, Mr. Shaw stated that Mr. Schmidt had always accepted DMB and EDS as excluded costs.

⁵ Exhibit C43, Binder 1, Tab 24.

[250] Dr. Thompson and Mr. Elzinga, after review of documents provided by CNRL and published reports of the Board of Directors concluded that some of the costs claimed as FEL by the Complainant were actually costs related to construction. A table in their report listed a number of other facilities in Wood Buffalo where FEL costs were considered and where at least some of those costs were excluded as abnormal costs. The table had no details for any of the facilities that could be compared to the Horizon Project.

[251] All of the witnesses were focussed on whether or not the costs claimed as FEL by CNRL were costs of construction or included or excluded costs pursuant to the CCRG. Neither party dwelt on whether or not FEL costs should be reported as part of total project cost.

[252] The Board has reviewed the wording of the CCRG. Section 1.000 of the CCRG states:

The costs of construction reported by the company to the assessor are the actual expenditures made in constructing the facility as referenced in the agreement with the contractor or as incurred directly by the company.

Construction costs include both direct and indirect costs.

[253] Section 1.100 goes on to examine direct and indirect costs.

1.100 DIRECT COSTS VERSUS INDIRECT COSTS

Direct costs are costs for labour, materials, and installation costs which can be directly related to the construction of a specific facility.

Indirect costs are costs incurred away from the site or are costs allocated to the project. Indirect costs are also incurred by a company that uses in-house resources to construct a facility.

The assessor should review the company submission to determine whether in-house staff have been involved in any construction activities. When such activities are identified allowances for indirect costs are to be included.

Direct costs include but are not limited to:

- *staff, including labour, supervision, inspection, janitorial, and security,*
- *materials used for construction,*
- *consulting fees,*
- *engineering, design, and surveys,*
- *construction equipment: including scaffolding, pumps, tools, and consumable supplies,*
- *monitoring and control of construction,*
- *handling and storage of materials and equipment,*
- *equipment maintenance, repairs, and winterization,*
- *temporary facilities,*
- *clean-up costs and removal of rubbish, and*
- *security, including yard lighting and fire protection.*

Indirect costs include but are not limited to:

- *general contractor and subcontractor profit,*
- *contractors' overhead, including administration costs and head office allocations,*
- *staff recruitment,*
- *permits: building, electrical, etc.,*
- *insurance: fire, liability, property, etc., and*
- *cost to obtain a performance bond.*

[254] Neither the CCRG, nor the Interpretive Guide to the CCRG provide specific assistance to the Board to assist in the determination of whether the FEL costs form part of the total project costs. In making its determination on whether the FEL costs are part of the total project costs, the Board examined section 2.000 of the CCRG, more particularly 2.100 which deals with the pre-construction activities. Section 2.100 of the CCRG states:

2.100 PRE-CONSTRUCTION ACTIVITIES

2.100.100 FEASIBILITY STUDIES

The costs associated with studies evaluating the viability of a proposed project are excluded. The costs of feasibility studies must be reported separately from the costs of developing working models that facilitate construction or staff training, which are included as project costs.

[255] The Interpretive Guide contains the following at page 7:

Consulting Fees

The costs of using consulting engineers, and other specialists to advise on the project are included. An allowance for the costs of in-house consulting services should be included. (See also: Feasibility Studies, page 10).

[256] The Board notes that the evidence of Ms. Zeidler was that these costs were incurred to determine the project's viability. She stated that all of these studies were undertaken prior to construction to determine "how it could all be achieved" and that the costs were booked as 'pre-construction.' Mr. Celis' report⁶ identifies these costs as "the internal process undertaken by CNRL to determine the viability and feasibility of a capital project to determine whether it will meet a given business need. Feasibility studies are excluded costs per CCRG." Mr. Shaw's evidence was that costs of studies to evaluate the viability of a proposed project are *excluded* costs.

[257] Although CNRL argued that FEL costs were not "part of construction", the Board was not convinced by the argument that these costs should not be considered as part of the total costs of the project. The Board also notes that the CCRG at section 2.100 expressly identifies feasibility studies as an *excluded cost*. If the pre-construction costs were not part of the total project costs, the Board believes that there would be no need for the CCRG to expressly identify that they be excluded, nor would the CCRG expressly identify feasibility studies as an expressly *excluded cost*. Further, the Interpretive Guide indicates that the costs for consulting are a cost of the project.

[258] It was apparent by the table in R47 that FEL is considered to be a component of total project cost even though some or all of it (no details were provided) could be excluded for assessment purposes.

[259] The Board finds that the costs identified by CNRL as FEL (\$597,948,000.00) are part of project costs and the total facility costs are to be adjusted upwards by \$597,948,000 to reflect this finding. Therefore, the Board finds that the total project costs are \$10,732,493,000. The revised total project cost will impact some ratios that are calculated in other areas.

⁶ Exhibit C43, Binder 2, Tab 23.

[260] From this total project cost number, the Board must subtract an amount for buildings and structures. The Board notes that the parties do not appear to be in agreement as to the amount for the buildings and structures. In Exhibit C98, CNRL lists its value of buildings and structures at \$364,429,000, while it lists the Municipality has having excluded of \$364,430,000 as the value of buildings and structures. In Exhibit C102, the Municipality identifies CNRL's position regarding the value of buildings and structures as \$364,377,000 and the same value for buildings and structures as accepted by the Municipality.

[261] The Board has examined the Horizon 2010 Assessment Calculation set out in Exhibit R45, which sets out a cost of \$364,430,000 for buildings and structures. That is the amount that will be attributed to Buildings and Structures and that is included in total project cost.

[262] The resulting total project costs can be reflected in the following table:

Total Project Costs	\$10,732,493,000
Buildings and Structure	\$ 364,430,000
Costs to be examined to determine excluded costs and abnormal costs	\$10,368,063,000

2b. If the FEL is to be included as part of the total project costs, are any of the FEL excluded costs?

[263] Having found that the FEL costs of \$597,948,000.00 form part of the total project costs, the Board must now examine whether these costs are *excluded costs* under the CCRG.

[264] The evidence of Mr. Celis, Mr. Shaw and Mr. Stowell was that all of these FEL costs are excluded under the CCRG. The assessment reflects \$362,948,000 of the \$597,948,000 FEL costs as excluded costs. Mr. Elzinga, in his independent assessment, excluded \$532,948,000 as FEL.

[265] CNRL listed the details for 71 cost accounts totally \$546.9 million representing 92% of the total FEL costs. A list of the top 10 expenditures representing 79% of the total FEL costs is found at Tab 23 of Exhibit 43.

[266] In Exhibit R47, Dr. Thompson summarized his review of the list of claimed FEL costs, identifying those that he considered to be construction related. In his opinion, "*based on the very limited description for each of the individual cost items shown in this section, a number of the incurred costs appear to be construction related, and should therefore be an included cost.*" For example, he estimated that approximately \$12,861,000 of the CNRL claim of \$69,318,485 for pre-construction was construction related.

[267] In all, Mr. Elzinga allowed \$532,948,000 as abnormal costs related to FEL or pre-construction. The assessor assigned an estimate to the CNRL claimed amount. That estimate, which "appeared reasonable" included 65% of DBM and 50% of EDS as pre-construction costs. In all, \$235,000,000 was considered by the assessor to be included cost in the 2010 assessment

(shown in C43, Tab 4). The assessor allowed an amount of \$362,948,000 as an excluded cost attributable to FEL.

[268] The Board then examined the provisions of Section 2.000 of the CCRG in relation to excluded costs. Section 2.000 of the CCRG states:

2.000 COSTS TO BE EXCLUDED IN DETERMINING ASSESSABLE COSTS

The following costs are to be excluded when determining assessable cost. This listing is not intended to be exhaustive.

Not all construction costs associated with a project are included in determining assessable cost. A project cost may be excluded from assessable cost for one or more of the following reasons:

- *it is the cost of a pre-construction activity*

...

2.100 PRE-CONSTRUCTION ACTIVITIES

2.100.000 FEASIBILITY STUDIES

The costs associated with studies evaluating the viability of a proposed project are excluded. The costs of feasibility studies must be reported separately from the costs of developing working models that facilitate construction or staff training, which are included as project costs.

[269] The question for the Board is whether the FEL costs claimed by CNRL relate to construction activity (in whole or in part) as claimed by the Respondent, or whether they are “pre-construction activity” more particularly feasibility studies as referenced in article 2.100.100 of the CCRG.

[270] The assessor excluded \$362,948,000 as FEL costs. The independent analysis conducted by Dr. Thompson and Mr. Elzinga excluded \$532,948,000 (approximately 89% of the total claimed by CNRL). The support was that the excluded amount “appeared reasonable”.

[271] The Board notes the large variance in amounts accepted by Mr. Schmidt and Mr. Elzinga, which speaks to the variation to be attributed to professional judgement.

[272] The Board has examined the amounts claimed by CNRL and finds that the \$597,948,000 are to be removed from the total project costs as either excluded costs or property that cannot be assessed.

[273] Section 2.300 of the CCRG provides that the cost of “property”, “improvements”, “structures” or “machinery and equipment” that do not meet the legislated definitions are excluded. The evidence before the Board was that the claims for:

Licenses	\$88.1 million
Mining costs	\$82.6 million
Access Roads and Bridges	\$32.2 million
Closing Balance	\$19.5 million
Tar River Diversion	\$10.4 million
Raw Water Pond	\$ 7.4 million
Employee costs	\$84.8 million

all fell within section 2.300 of the CCRG.

[274] With regard to the Scoping Studies, the Design Basis Memorandum (DBM) studies and the Engineering Design Specifications (EDS) studies, the Board accepts the evidence from Ms. Zeidler and Mr. Celis that the primary purpose of these studies was to determine the viability of the Horizon Project and until project sanction, the project may not have proceeded. The evidence from Dr. Thompson and Mr. Elzinga was that the EDS and the DBM studies may be used as cost control measures or to provide some guidance to the contractors when those contractors are putting together their contracts. However, the Board is of the view that the fact that these reports have more than one function does not detract from their primary purpose of assisting CNRL in determining the viability of this project.

[275] Even if the Board wished to exclude some percentage of these EDS and DBM costs to reflect their multiple purposes, the Board was given no methodology upon which to do so. Neither of the Municipality's witnesses could provide the Board with a specific justification to attribute a certain percentage of these costs as being a cost of construction. Failing some evidence or rationale upon which to base a percentage, the Board accepts the evidence of CNRL witnesses in this matter.

[276] The Board sets the total amount of FEL as an excluded cost at \$597,948,000. While some expenditures, such as those for DBM and EDS might have value in future areas during construction, the Municipality's allocations of 35% and 50% respectively are without support or tangible details for the Board to weigh against the evidence of the Complainant. By contrast, the Complainant provided a number of tables and schedules to support its claim. In this regard, the Board preferred the more detailed evidence of the Complainant against the general statements of the Respondent. Statements similar to "appears to be a construction cost" or "appears to be construction related" do not convince the Board that those opinions are sound. The Board accepts the evidence of Mr. Stowell and Mr. Shaw that total FEL costs are typically excluded in assessments of facilities similar to Horizon.

[277] The Board therefore finds that the FEL costs of \$597,947,967 are excluded costs under the CCRG.

[rest of page left blank intentionally]

3. Are the costs incurred by CNRL for “pre-investment” an excluded cost under the CCRG?

- a. Does the equipment claimed as pre-investment meet the definition of “machinery and equipment”?
- b. If it meets the definition of “machinery and equipment”, is there an exemption in CCRG to permit the exclusion of these pre-investment costs?
- c. If the cost for the pre-investment is part of the included costs, how is it to be valued?
- d. What is the application, if any, of Schedule D (additional depreciation) for the ‘pre-investment’?

[278] CNRL seeks to have excluded as “pre-investment” those costs it incurred to prepare for the production to come on line in Phases 2 and 3. CNRL claims that its pre-investment costs for Phase 2 and Phase 3 do not form part of the assessable costs on the following basis:

- a. They are not an integral part of the operational unit;
- b. Certain costs are abnormal and should be excluded to maintain consistency among regulated properties; and
- c. Additional depreciation could be used to reflect the loss in value of a facility.

[279] It was CNRL’s position that the pre-investment components were not excluded forever, but were to be delayed until the applicable phases were completed or in operation. Nor were the costs to be 100% excluded. CNRL has claimed excluded costs of \$918,541,000 as pre-investment (Pre-investment column on the November 2009 rendition).

[280] CNRL’s position is that there has been pre-investment due to the oversizing of certain tanks, vessels and the pipe rack and the underutilization of some equipment. The position of the Municipality is that provided the equipment meets the definition of “machinery and equipment”, it is assessable.

[281] The Board finds that the first part of the analysis requires the Board to determine whether the equipment meets the definition of “machinery and equipment” under the Regulation.

[282] Section 1(j) of MRAT defines “machinery and equipment”:

*“machinery and equipment” means materials, devices, fittings, installations, appliances, apparatus and tanks other than tanks used exclusively for storage, including supporting foundations and footings and any other thing prescribed by the Minister **that forms an integral part of an operational unit** intended for or used in*

...

(iii) the production or transmission by pipeline of natural resources or products or by products of that production, but not including pipeline that fits within the definition of linear property in section 284(1)(k)(iii) of the Act,

...

(emphasis added)

[283] The question is whether the pre-investment apparatus “forms an integral part of an operational unit”. The evidence presented to the Board was that all of the overbuilt equipment except for that at Business Unit 33.1 and the concrete foundation were installed and operating. The Board heard from the Municipality that it was prepared to accept that the equipment at Business Unit 33.1 was not installed and therefore did not fall within the definition of machinery and equipment, even though the definition states that machinery and equipment is “...apparatus ... and any other thing ...that forms an integral part of an operational unit *intended for* or used in” the operations.

[284] The Municipality conceded that the pre-investment not in use for Business Unit 33 was valued at \$33,587,300.

[285] The argument advanced by the Municipality was that the concrete pad was not machinery or equipment, although it could be something else, and therefore should not be included as an assessable cost. There was no disagreement from CNRL about this.

[286] The uncontroverted evidence from CNRL was that the equipment in question was installed and operating,⁷ but that it is larger than is required for Phase 1 operations.

[287] The Board finds it difficult to accept CNRL’s argument that the overbuilt equipment does not form an integral part of an operational unit simply because it is overbuilt for the Phase 1 production. There was no evidence presented by CNRL that indicated that the overbuilt equipment, including the tanks or the pipe racks were not required to process the 110,000 barrels per day. To the converse, CNRL witnesses indicated that the oversized equipment was needed to produce CNRL’s end product, albeit the equipment had capacity to produce more than the 110,000 barrels per day in Phase 1 production.

[288] Reading the definition of “machinery and equipment”, it is clear that if the apparatus forms an integral part of the operation, it is machinery and equipment. The only evidence before the Board was that the equipment was required for CNRL’s production. The Board therefore finds that with the exception of Business Unit 33-1, where the equipment is not operational, all other of the pre-investment equipment fall within the definition of “machinery and equipment” and must be assessed.

Exclusion of Pre-investment Costs

[289] Having found that the items claimed by CNRL as pre-investment meet the definition of machinery and equipment, the Board must determine if there is an exemption in CCRG to permit the exclusion of these costs.

[290] CNRL argued that the Board may choose to exclude the pre-investment costs on the basis that they are spare equipment. However, this argument is not supported by the evidence. If the pre-investment equipment was spare equipment, the Board would have expected the evidence to be that the equipment was sitting idle, waiting to be utilized. The evidence was that the

⁷ With the exception of Business Unit 33-1.

equipment is installed and running, albeit not to full capacity. The Board rejects the argument that the cost for the oversized equipment is an excluded cost for spare equipment.

[291] CNRL also argued that the costs can be excluded on the basis of interference costs. While the Board recognizes that there may be such a claim in the future (where CNRL incurs additional costs because machinery and equipment is being installed in close proximity to existing equipment), the evidence does not support such a claim at the present time.

[292] Mr. Celis argued that the cost for pre-investment was an “abnormal cost”, thus justifying its exclusion under section 2.500 of the CCRG. The Board notes the following contained under section 2.500.

The determination of what constitutes “typical” or “normal” is difficult; it is subjective and it may vary over time, from one location to another and among industries. If the actual costs of an industrial facility are greater than typical construction costs, the excess construction costs of the facility are considered abnormal and are excluded.

Abnormal costs can result from delays in construction caused by natural disasters or inclement weather or they may occur when the construction workforce is on site but a lack of supplies or a work slowdown reduces or stops actual construction. Additional costs incurred because of unproductive labour are excluded.

Two additional examples of abnormal costs are:

- *a cost that would typically not be incurred in a balanced market, and/or*
- *a cost that is excluded to maintain consistency among regulated properties.*

Specific documentation is required to substantiate claims for abnormal costs.

[293] The Board has examined the items listed in section 2.500 to determine if they provide any assistance in interpreting whether the costs for building the components for Phases 2 and 3, or the oversizing costs should be excluded as an abnormal cost.

[294] The Board heard evidence from CNRL’s witnesses that the costs for “overbuilding” (which is, in essence what CNRL is categorizing as “pre-investment”) has been routinely excluded within the Municipality. The Municipality provided no contrary evidence to this point. Therefore, based upon the evidence, and applying the second bullet of the above quote, the Board finds that the “pre-investment” is an abnormal cost, which needs to be excluded to ensure that CNRL is treated consistently, and therefore equitably, with other regulated properties in the Municipality.

If the equipment must be assessed, how is it to be valued?

[295] Having found that the equipment is “machinery and equipment” as defined in the regulation, and having found that it is an abnormal cost, the Board must determine how it is to be valued.

[296] Mr. Celis argued that the pre-investment costs would not be removed from assessment forever, but they should be temporarily removed until Phases 2 and 3 are operational. Ms. Zeidler indicated that in January 2011, CNRL hoped to be on target for a 2012-2013 operation for Phases 2 & 3. However, in her rebuttal evidence, Ms. Zeidler indicated that 2018 was now the year in which CNRL was projected to bring Phases 2 & 3 on stream.

[297] Having found that the oversized equipment is machinery and equipment under the definition contained in MRAT, the question is how it should be valued. The Complainant's approach explained to the Board was that the valuation should be conducted on the 6/10 power rule. The Board recognizes that as early as 2007 CNRL had tables showing the methodology and the costs breakdown for the three phases of construction (Exhibit C-39 page 1200). The evidence before the Board from Mr. Shaw and Mr. Stowell, as well as from Mr. Elzinga, is that it was common to have the valuation be on the 6/10s rule.

[298] In the amended assessment, Mr. Schmidt rejected CNRL's claim for pre-investment as an excluded cost on the basis that the exclusion was not contemplated in the CCRG. However, Mr. Elzinga would have allowed \$918,514,000. Although CNRL sought to increase the excluded amount to \$944 million, it gave no rationale for the increase except a general statement that it had recalculated the amount. Without further justification, the Board is not prepared to accept CNRL's revised claim. The Respondents' witnesses (Dr. Thompson and Mr. Elzinga), put forward no evidence to contest this as the valuation of the equipment.

[299] The Board accepts the excluded cost claim for pre-investment in the sum of \$918,541,000 (through application of the allocations made by CNRL cost engineers and the 6/10 power rule).

[300] As an alternative method of dealing with valuation, Mr. Elzinga indicated that he would address the valuation based upon Schedule 'D' Depreciation (Schedule 'D' of the Ministers Guidelines). However, as shown above, changes in the start-up date make it difficult to attribute a principled rationale for the allocation of additional depreciation under the Minister's Guidelines. Mr. Elzinga acknowledged by his actions that there needs to be recognition that such equipment should not be assessed on the basis of 100% of cost. The Board notes that the municipal assessor, Mr. Schmidt, indicated that 100% of the \$918,541,000 was assessable.

[301] The Board had no other evidence before it that showed that Schedule 'D' was commonly used, whether in the municipality or elsewhere in Alberta. It would be hard to accurately quantify any reduction for additional depreciation under Schedule 'D'. Based on the evidence that it was accepted practice to value at 6/10s for overbuilding, the Board accepts the valuation of this equipment at \$918,541,000. This amount is excluded from the assessment valuation.

4. Does the evidence support the exclusion of costs as set out in the 46 Accounts?

[302] Having determined total project costs and addressed the issues of FEL and pre-investment, the next area the Board must examine is CNRL's claim for excluded costs as identified in the 46 categories.

Legislative Background for Excluded Cost Claims

[303] The CCRG provides that certain construction costs may be excluded as “excluded costs”, while other costs may be excluded as “abnormal costs”.

Excluded Costs

[304] The basis for the exclusion of costs is found in Section 2.000 of the CCRG. The CCRG provides that costs may be excluded for one or more of the following reasons:

- a. Cost of pre-construction activity,
- b. Cost of post-construction activity,
- c. Costs associated with a component of a project not defined as property in the Act,
or
- d. Costs associated with property which is exempt from assessment under the Act.

[305] Although sections 2.100 through to 2.500.500 set out a listing of excluded costs, the preamble to section 2.000 provides that the listing contained within the CCRG is not exhaustive.

Abnormal Costs of Construction

[306] Section 2.500 of the CCRG sets out the provisions relating to abnormal costs. The preamble indicates that what should be considered as abnormal costs is subjective, and can vary over time and location. Thus, the Board must examine each of the claims to assess whether CNRL’s claim to exclude the costs as abnormal is justified on the evidence.

2.500 ABNORMAL COSTS OF CONSTRUCTION

In order to reduce uncertainty and improve assessment consistency among regulated properties the following assumptions are made to describe normal conditions for the construction of regulated property: an adequate labour force is readily available at the worksite, raw materials and pre-fabricated component parts are readily available, projects are financed from operations or from shareholder equity and companies make no provision for interest during construction, and premium payments are not made for overtime worked.

The determination of what constitutes “typical” or “normal” is difficult; it is subjective and it may vary over time, from one location to another and among industries. If the actual costs of an industrial facility are greater than typical construction costs, the excess construction costs of the facility are considered abnormal and are excluded.

Abnormal costs can result from delays in construction caused by natural disasters or inclement weather or they may occur when the construction workforce is on site but a lack of supplies or a work slowdown reduces or stops actual construction. Additional costs incurred because of unproductive labour are excluded.

Two additional examples of abnormal costs are: a cost that would typically not be incurred in a balanced market, and/or a cost that is excluded to maintain consistency among regulated properties.

Specific documentation is required to substantiate claims for abnormal costs.

2.500.100 TRAVEL COSTS

The costs of paying staff for time spent travelling to and from the worksite or any costs to supply transportation for the workforce to and from the site are excluded.

2.500.200 TRANSPORTATION COSTS

The costs of transporting raw material and components from the Edmonton area to the work site are excluded. However, if the actual transportation costs from the point of origin to the plant site are equal to or less than the cost to the Edmonton area, the entire transportation costs are included.

Note: The cost of loading and unloading the raw materials and components is included.

2.500.300 INTEREST DURING CONSTRUCTION

The interest to finance the construction of a regulated property is excluded.

2.500.400 OVERTIME

The premium portion of wages and fringe benefits paid for overtime is excluded. For example, if time and a half is paid, the regular time portion is included but the extra half portion is excluded.

2.500.500 PROPERTY TAXES

The property and business taxes paid on a facility are excluded.

[307] The Board also examined the Interpretive Guide to the 2005 Construction Cost Reporting Guide⁸. The Board recognizes that the Interpretive Guide is not a regulation under the MGA. However, the Board notes that the Interpretive Guide is published by Alberta Municipal Affairs, and is stated to have the following purpose:

The purpose of this guide is to assist company representatives in providing information needed by assessors to prepare assessments for regulated properties.

...

The principal objectives of this guide are to specify minimum standards for reporting construction costs, and to describe the construction costs that should be included in determining assessable cost.

[308] Since this Interpretive Guide is published by Alberta Municipal Affairs and its purpose is to provide both assessors and industry with some guidance as to costs to be included within assessable costs, the Board has examined the provisions of the Interpretive Guide. Where there is a conflict between the CCRG and the Interpretive Guide, the Board relies upon the provisions of the CCRG.

Evidence

[309] Within its cost rendition (Exhibit C63), CNRL has listed the 46 areas over which it is claiming exemptions. Each of those areas has been given a line number. In Exhibit C98, CNRL has summarized its claim for excluded costs showing CNRL's position, the position of the Municipality and that of the independent review conducted by the Municipality's witnesses. In

⁸ Found at Tab 6, Exhibit C40.

C98, CNRL has referenced the excluded costs claims by the line number assigned to each in the cost rendition. The Municipality has provided its position in R102, but it has not referenced the line number from the rendition.

[310] In both R102 and C98, the parties have highlighted those areas of dispute in terms of excluded cost claims. These highlighted areas require decision by the Board. For ease of reference, the Board will refer to the specific line number and heading. The Board will address them in numeric order of the 46 accounts, not in the order of highest fiscal impact.

[311] CNRL argued that the determination of “normal” should be based upon the sanction budget. The rationale advanced by the witnesses (Ms. Zeidler, Mr. Celis, Mr. Shaw) include the fact that the sanction budget was established based upon a large percentage of lump sum contracts.

Excluded Costs Examination of 46 line items

[312] The Board finds that an analysis of abnormal costs of construction requires there to be a comparison against a baseline. Unless there is a determination of what is normal, there cannot be an assessment of what is abnormal. The question is how the determination of “normal costs” should be determined in the current matter.

[313] The Board heard evidence from CNRL that it had a Class 1 estimate prepared in accordance with the AACE standards. That estimate came to \$6.1 billion to which CNRL added an additional \$700 million to provide for contingencies. The evidence before this Board was that CNRL obtained contractors’ fixed price or unit price bids for approximately 68% of the sanction estimate of \$6.8 billion. The Board also accepts the evidence of Ms. Zeidler that it conducted an analysis following completion of the project to determine the cause of the project costs being in excess of the sanction estimate. That examination by cost engineers revealed that the project had only a 2% scope growth.

[314] Dr. Thompson argued that the sanction budget was not an appropriate determiner of normal costs because it was based on 2004-2005 dollars whereas the majority of actual expenditures were made in 2007-2009. The budget would therefore have to be adjusted for inflation to the years when expenditures were actually made and he suggested the factors in the Minister’s Guidelines as one method of making that adjustment.

[315] While a sanction estimate may not always establish the normal costs of a project, given the particular facts of this case, the Board is prepared to accept the sanction budget of \$6.8 billion as the estimation of normal, based upon the fact that it was:

- Based on a Class 1 AACE estimate
- Based on a sanction budget where 68% of the contracts were fixed price or unit price contracts – contractors would have known that their work would extend over several years and they would have built inflation into their bids
- Scope growth was only 2% of the project
- The general economy was in a high growth period.

[316] The Board will examine each of the disputed items below.

#4 Costs to clear, drain, level, shape and finish site ready for construction

[317] CNRL has claimed \$503,481,000 as an excluded cost. The revised assessment set out \$398,482,000 as the amount allowed as an excluded cost under this heading. According to Exhibit C98, Mr. Elzinga would have allowed \$485,374,000 as an excluded cost. Exhibit R102 suggests that Mr. Elzinga would have allowed \$398,230,000 as an excluded cost. However, in his oral testimony, Mr. Elzinga acknowledged that only \$18,000,000 was in dispute regarding this claim.

[318] The CCRG is silent on the issue of site preparation. However, the Interpretive Guide states at page 7:

SITE PREPARATION

The costs to clear, level, and finish the site to standards typical for industrial property in the area are included. (See also: Site Improvements, page 8, Retaining Walls, etc., page 8, and Abnormal Costs of Construction, page 11.)

Note: *When the land assessment is based on the value of finished industrial land (stripped and graded), the actual site preparation costs are excluded.*

The costs to deal with adverse factors, for example topography or soil conditions not ordinarily encountered in construction projects, as well as reclamation costs required to bring the site back to the quality of raw land in the vicinity, are considered abnormal costs and are therefore excluded.

[319] CNRL's evidence was that its land assessment was based on the value of developed industrial land in the Municipality. Therefore, CNRL excluded the total costs for the site preparation of the Horizon Project from the cost rendition and replaced with a standard rate per acre (land assessment). Mr. Celis indicated that this is the normal treatment for land assessment in the Municipality. The evidence was that the work done by CNRL to prepare the Horizon Project site included site clearing, bringing in landfill, levelling, earth-moving, excavating, land drainage and other land preparation so it would be ready for construction. This amount also included the overburden removal for mining purposes.

[320] Mr. Elzinga acknowledged in Exhibit R47 that there was an agreement between Mr. Schmidt and CNRL to exclude all site preparation costs associated with preparing the site for construction. The meeting notes from the meeting on November 10, 2008 state the following:

3. Exempt/Non-assessable Areas

a) Site Preparation

- All costs to prepare the site for construction will be excluded from assessable costs as they are included in the land value for the developed plant areas.

- Typical site development costs relating to actual improvement construction is included in B&S or M&E costs (ie. excavation; backfill; fill ; compact; pilings; etc.)

[321] However, Mr. Elzinga argued that CNRL was claiming normal site preparation costs associated with construction activities as abnormal or excluded costs. He was prepared to

recognize that CNRL might have incurred some abnormal site preparation costs, and he would accept 50% of the \$36 million claimed for site preparation.

[322] The Board notes that CNRL has utilized a standard land value. The Interpretive Guide also recognizes that the costs for site preparation are to be excluded.

- All costs to prepare the site for construction will be excluded from assessable costs as they are included in the land value for the developed plant areas.

[323] Although Mr. Elzinga is prepared to acknowledge 50% of the disputed \$36 million, this concession did not appear to be based upon any particular analysis of the items in question. The Board found no rationale for the 50% concession. To the Board's view, these costs would either all fall within site preparation, or there would be specifics indicating that the costs were normal costs of construction. The Board prefers the evidence of CNRL on this point which applies a consistent approach. Therefore, the Board is prepared to accept the entire \$503,481,000 as an excluded cost claim.

#9 Abnormal exchange rates

[324] CNRL claims \$142,000 of abnormal currency exchange as an excluded cost. The assessment allowed \$93,000 as an excluded cost claim. Mr. Elzinga would have allowed \$0 as an excluded cost.

[325] CNRL seeks to have the abnormal currency exchange costs excluded pursuant to section 2.300.100 of the CCRG which states:

ROYALTIES, LICENSES, AND PATENT FEES

The payments made for the right to use particular processes are excluded.

[326] The Board notes that CNRL presented no evidence to show a link between the currency exchange costs and any royalty, license or patent fee. Further, the Board notes that the materials filed by CNRL contain no background information in support of this claim.

[327] Had it been possible, the Board would have allowed \$0 as an excluded claim for abnormal currency exchange. However, the position of the Municipality was that it was seeking to uphold the revised assessment, which allowed \$93,000 as an excluded cost claim for currency exchange rates. Therefore, the Board will continue to allow the \$93,000 as an excluded cost claim for this line item.

#12 Design changes, modifications that only attain original efficiency or capacity

[328] CNRL asks that \$36,845,000 be permitted as an excluded cost claim for design changes. The revised assessment allowed \$18,422,000 (50%) as an excluded cost claim, while Mr. Elzinga would have allowed \$29,470,000 (80%) as an excluded cost claim.

[329] The CCRG in section 2.300.400 provides the following:

2.300.400 DESIGN CHANGES, ALTERATIONS, AND MODIFICATIONS

Alteration costs incurred during construction that improve the operational efficiency of the original plant design, are excluded. Likewise, the costs of “de-bottlenecking” or modifying an operating process are excluded if there are no changes to the equipment inventory.

Note: *The cost of equipment installed to improve operational efficiency is included.*

[330] At Exhibit C43, Tab 32, CNRL has set out the details for this change. The Board accepts that the items listed here fall within section 2.300.400 as they address design changes.

[331] The Board notes that Mr. Elzinga would have allowed 80% due to the advice from Dr. Thompson regarding limitations in the cell notes and the resultant difficulties regarding normal conditions. Although there may have been limitations in the cell notes, the Board notes that CNRL had offered the assessor the opportunity to go through any information it held. The information before the Board is that the assessor did not take advantage of that. The Board was offered no rationale for the acceptance of 50% of the claim. The assessment of an acceptance of 80% of the claim does not appear to reflect an analysis of the specific items contained within this cost claim. Therefore, the Board prefers the evidence of CNRL and accepts \$36,845,000 as an excluded cost claim for design changes.

#13 Costs relating to rework unless original efficiency or capacity increases

[332] CNRL claims \$89,440,000 as an excluded cost related to rework. The assessor allowed \$44,720,000 as an excluded cost related to rework, while Mr. Elzinga would have allowed \$71,555,000.

[333] At Exhibit C43, Tab 30, Mr. Celis suggests that CNRL’s claim for rework should be revised to \$95,000,000. However, the Board has not been presented with sufficient evidence to justify this increased claim and the materials provided by CNRL in Tab 30 do not add to the \$95,000,000. Therefore, the Board does not agree that the upper limit of this claim is \$95,000,000 and will examine on the amount set out Exhibit C98 (\$89,440,000).

[334] At Exhibit C43, Tab 30, Mr. Celis has set out the justification for the rework as including \$37 million for pipe rack rework, \$38 million resulting from an analysis of the individual change orders entered by CNRL and \$14 million based upon the risk model included in the lump sum contractor bids.

[335] The Board has examined the lists of change order descriptions found at Exhibit R47, Tab 10.4, page 32/85 and following. Those descriptions from the change orders indicate that the rationale for the change is rework. The Municipality’s witnesses have indicated that rework would occur under normal or typical construction conditions and therefore that portion which reflects the “normal” conditions should be included in the construction costs. However, the evidence of Mr. Elzinga was that he would attribute 80% of these costs to abnormal or excluded. The Board noted that this approach was viewed by Mr. Elzinga as “reasonable and conservative”, but was not presented with a rationale for the attributed percentage, nor any particular change orders or portion of CNRL’s evidence which justified the 80% exclusion. The

testimony of the witnesses did not provide further clarification on this point and the Board prefers the more specific evidence contained in Exhibit C43, Tab 30 to the more general comments contained within the Municipality's evidence. The assessment reflects a 50% allowance for rework. Without knowing how the Municipality and its expert witnesses attributed the percentages (50% and 80%) of excluded costs, the Board accepts CNRL's claim for \$89,440,000 as an excluded cost for rework.

#19 Domestic sewage treatment and disposal systems (plant & camps)

[336] The Board notes that the claim for excluded costs for Domestic Sewage Treatment and Disposal systems is highlighted as being contested. The Board further notes that the amount in both CNRL's claim and in the revised assessment sought to be upheld by the Municipality is \$919,000. It appears that this line item is highlighted due to the fact that the independent review by Mr. Elzinga sets out his determination that the permitted excluded claim should be \$98,000.

[337] The position of the Municipality repeated throughout the hearing was that it was seeking to uphold the revised assessment and that the analysis conducted by its witnesses was an independent review which showed that the revised assessment value was justified. The Municipality indicated that it was not seeking to change the revised assessment to the values set out in this independent analysis, but was using it to show the overall accuracy of the revised assessment. Given this position by the Municipality, the Municipality cannot now seek to justify the change to this line item based upon the independent assessment. Therefore, the Board accepts the excluded cost claim for Domestic Sewage Treatment (line #19) in the sum of \$919,000.

#23 Adequate labour force readily available at the worksite is assumed

[338] CNRL seeks to exclude the sum of \$4,008,000 as an abnormal cost to reflect the fact that there was not an adequate labour force readily available at the worksite. The assessment excluded \$2,004,000 while Mr. Elzinga would have allowed \$2,042,000 under this heading.

[339] Section 2.500 of the CCRG provides that a normal condition of construction is an assumption that there is an adequate labour force readily available at the worksite.

2.500 ABNORMAL COSTS OF CONSTRUCTION

In order to reduce uncertainty and improve assessment consistency among regulated properties the following assumptions are made to describe normal conditions for the construction of regulated property:

- *an adequate labour force is readily available at the worksite,*

Should there not be an adequate labour force readily available, this constitutes an abnormal condition, and the costs reflecting this abnormal cost should be excluded.

[340] CNRL seeks to exclude approximately \$4 million under this category. The evidence supplied by CNRL at Exhibit C43, Tab 36 provides details in relation to approximately \$3 million of the \$4 million claimed. The Board was not provided with details regarding the other

\$1 million. The Board notes that \$2.4 million (Change Order 40051109 at \$1.4 million (3300101) Att.33-03/05 and Change Order 40051333 at \$1 million (5000101) Att. 57-55.08) related to drug and alcohol testing and safety training. CNRL provided no evidence that convinced the Board that drug and alcohol testing and safety training would not occur in a balanced market. As these two change orders make up the largest percentage of this account item, the Board is not prepared to accept CNRL's position on this item. The Board does not agree that the Municipality made any error in its interpretation of this claim and accepts the sum of \$2,004,000 as an excluded cost due to abnormal conditions for account 23.

#24 Unproductive labour

[341] CNRL seeks to exclude the sum of \$610,641,000 as an abnormal cost. The assessment permitted \$418,026,000. Mr. Elzinga would have allowed the sum of \$390,649,000.

[342] Section 2.500 of the CCRG provides as follows:

The determination that constitutes "typical" or "normal" is difficult; it is subjective and may vary over time, from one location to another and among industries. If the actual costs of an industry facility are greater than typical construction costs, the excess construction costs of the facility are considered abnormal and are excluded.

Abnormal costs can result from delays in construction caused by natural disasters or in climate weather or they may occur when the construction workforce is on a site that lack of supplies or a work slowdown reduces or stops actual construction. Additional costs incurred because of unproductive labor are excluded.

Two additional examples of abnormal costs are:

- *A cost that would typically not be incurred in a balanced market, and/or*
- *A cost that is excluded to maintain consistency among regulated properties.*

[343] The question for the Board is whether the claim put forward by CNRL for productivity loss was abnormal, thus justifying its exclusion.

Determination of "normal"

[344] In his testimony, Mr. Otsu described the modeling which he did to calculate the amount of unproductive labor. He stated that contractors would have considered inflation when preparing their bids. The Board accepts this evidence on the basis that contractors were preparing bids in 2004-2005 with the knowledge that the construction would be completed over a time period of up to three years and that the contractors would not get paid in full for three years or more. Based on the cost factors at Section 2.001.100 located at page 2 of the Minister's Guidelines, the average annual rate of inflation is about 3% over ten years for the period of 1995 to 2005 and 4% over five years for the period of 2000 to 2005. It is then logical to the Board to accept that an informed contractor would have built in an inflation factor of at least 3-4% into any bid made on the conditions that prevailed in 2004-2005. Therefore, the sanction budget should be considered to be "normal" or "typical" costs for the Horizon Project and costs over the sanction budget should, therefore, be considered to be abnormal.

[345] Mr. Otsu said that he had faith in the contractors' estimates that went into the sanction cost because those successful, major contractors (particularly those making lump sum bids) would have exercised sound bidding practices. Those included the typical practice of risk adjustment based on a 70% probability of success and then adding a contingency amount over and above that.

[346] Dr. Thompson both in his written report (Exhibit R47, Tab 8, Page 4/12) and in oral testimony, stated that as a Class 1 cost estimate, the Horizon sanction cost would be subject to estimating errors and resultant tolerances. His graph of probabilities showed that in order to achieve 100% probability accuracy, the cost estimate should have been increased from \$6.8B to \$7.82B.

[347] In his exhibits R47, Tab 10.8, Dr. Thompson, using the CCRG interpretation provided by Mr. Elzinga, that the determination of what is normal or typical must be made in the context of the time frame during which the Horizon Project is built, and the location in which it was built. Dr. Thompson stated that project cost escalations resulting from a project being built during an inflationary period of time does not suggest abnormal costs have been incurred. If similar projects were being built in similar locations during the same time period and these projects experienced similar cost escalations, then the cost escalations would be considered normal. At paragraph 7 on page 4/10, Dr. Thompson provided an interpretation of Section 2.500 of the CCRG:

Section 2.500 of the CCRG specifies that abnormal costs may result from a cost that would not typically be incurred in a balanced market and/or a cost that is excluded to maintain consistency among regulated properties. The CCRG assumes that an adequate labor force and materials are available in a balanced market. An inadequate labor force and/or unavailability of materials may result in lost productivity and abnormal costs.

[348] The Board is of the view that the situation provided in Dr. Thompson's interpretation above is precisely what occurred in the construction of the Horizon Project.

[349] The Board does not accept Dr. Thompson's position that the typical or normal costs must be calculated by application of an inflation factor to the 2005 cost of \$6.8B. Although Dr. Thompson has provided his opinion to the Board, that opinion was not supported by any of the other witnesses who had experience within the Regional Municipality of Wood Buffalo. Most importantly for the Board, Dr. Thompson did not provide any evidence to confirm that his method that was used in making the assessments of any other oil sands facilities within the Municipality.

[350] The Board accepts Mr. Otsu's evidence that contractors would allow for inflation, adjust for risk of bid accuracy and then add a contingency amount. As indicated above under the heading "Excluded Costs – Examination of 46 line items", on the particular facts of this case, the Board is prepared to accept that CNRL's sanction cost estimate of \$6.8B is a "typical" or "normal" cost against which the abnormal cost of productivity should be measured. Depending upon the facts in other cases, a sanction estimate may not be accepted by a Board as an appropriate determination of "typical" or "normal" costs. However, on these particular facts, the Board accepts it as such.

Calculation of Productivity Loss

[351] Mr. Otsu stated that the CCRG has been interpreted in similar fashion to that of CNRL in assessing other oil sands projects. In his evidence (Exhibit C39), Mr. Stowell, provided a copy of the “Tax Assessment Guidelines for Calculating Abnormal Productivity” that had also been used by Mr. Otsu in Exhibit C41. In Exhibit C39, Page 1169-Model Page-that had been provided to the assessor in 2007 showed that lost productivity would be measured against an Edmonton (mid-Alberta) base. Mr. Stowell’s testimony confirmed that, in his lengthy experience, it was common practice in making assessments of projects like the Horizon Project to calculate productivity losses as an abnormal cost using the Edmonton base.

[352] Mr. Shaw confirmed in his testimony that the Edmonton area forms the base against which productivity losses are measured. (See Exhibit C40, Page 59 of 79). He stated that in his experience projects that he had been involved in used the methodology to determine abnormal costs that occurred during the actual construction of the project. His evidence was that CNRL’s method of calculating the losses using actual data were available and productivity ratios were detailed that were not available, such as from lump sum contracts, with the type of analysis that he was familiar with having been done in the past and had been accepted as a method to meet requirements of the CCRG.

[353] In his testimony and in Exhibit C41, Mr. Otsu explained the rationale behind the adjustment factor for measurement of abnormal productivity for the Horizon Project relative to mid-Alberta. He indicated that each of the six productivity factors (Bussing, Working Shift, Crank Turnover, Winter Impact, Material Logistics and Training) are defined and measured.

[354] In the Municipality’s Section 299 response (R33-find the Exhibit in C43), authored by Dr. Thompson and Mr. Schmidt, there are a few superficial comments and changes are made to most of the percentage amounts that Mr. Otsu applied to the six factors. For example, in relation to the Turnover of Crafts & Absenteeism (Item 3), the following statement is made: “... Item 3 is reduced to 3% and this represents the difference between turn-over between Fort McMurray and Edmonton, i.e. 3% and not 5% as suggested by CNRL.”

[355] After making similar adjustments to other items, Dr. Thompson and Mr. Schmidt suggested that the total difference between Edmonton (mid-Alberta) and Fort McMurray was closer to 15%. However, after coming to that conclusion, the Municipality retained and used the 27% factor for the current assessment year.

[356] In Exhibit R47, written by Dr. Thompson and Mr. Elzinga, Tab 10.8 is attributed to Dr. Thompson. In that Tab, there is no discussion of the factors set out by Mr. Otsu which were discussed in the section 299 response. The last paragraph of Tab10.8, however, states that Mr. Elzinga applied a factor of 1.23 as covered in Mr. Elzinga’s testimony, that factor came about by reducing the rate for Turnover of Crafts & Absenteeism from 5% to 4% and reducing the rate for Capital and Material Logistics from 3% to 0%.

[357] Notwithstanding, having regard to the evidence and testimony of Dr. Thompson and Mr. Elzinga, the Board finds that the 3% rate for Materials Logistics as applied by Mr. Otsu is

unreasonable and should be 0% as set out by Dr. Thompson and Mr. Elzinga. The construction of a \$10B, two or three phase facility near Edmonton would also entail a very large site with on-site warehousing, lay down areas, and so on. Therefore, the Board is not prepared to accept that this is an abnormal cost.

[358] The Board accepts Mr. Otus's general methodology (but not his mathematical application) using calculating productivity losses. In Mr. Otsu's analysis, he set the Fort McMurray baseline at 1.0 where it seems to be more common to set the Edmonton baseline at 1.0. By reversing the baseline unit, Mr. Otsu arrived at a higher factor. The Board does not accept Mr. Otsu's application of the factor where he sets Fort McMurray as a factor of 1.0 and then adjusts that downwards to Edmonton. This results in a 38% adjustment. Common practice, as described by Dr. Thompson and Mr. Otsu himself, is to use Edmonton (mid-Alberta) as a factor of 1.0 and then adjust forward to Fort McMurray. This results in a 27% adjustment. While the calculations may seem insignificant, the end result is markedly different.

[359] The Board accepts the overall 1.27 factor adopted by both CNRL and the assessor, Mr. Schmidt. The Board finds that the calculation using 27%, as put forward by Dr. Thompson, is the correct way to make this calculation. The Edmonton-Fort McMurray method is supported by Mr. Stowell and Mr. Shaw, both of whom are experienced with machinery and equipment assessments in the Regional Municipality of Wood Buffalo and the rest of Alberta. Dr. Thompson also used this Edmonton-Fort McMurray comparison in his analysis even though it is not specifically sanctioned by the CCRG.

[360] The order of the Board is that the productivity loss claim be adjusted on a 27% variance between mid-Alberta and Fort McMurray. In making the change, the "estimated overall productivity factor" as described in paragraphs 264-266 of C43, Tab 4, will have to be adjusted as well.

[361] The Board is aware that the CCRG does not suggest Edmonton or mid-Alberta as base for measuring any abnormal costs other than freight. All parties of this hearing; however, appear to be in agreement that productivity losses are best measured against that mid-Alberta base.

[362] Given the Board's acceptance of the 1.27 factor, the Board is not convinced that the figure for loss of productivity as put forward by CNRL is appropriate and therefore grants the sum of \$418,026,000 for productivity.

#26 Added costs due to night shift work (i.e., light plants, etc.)

[363] CNRL seeks to exclude the sum of \$1,105,000 for added costs due to night shift work. The assessment allowed \$0, while Mr. Elzinga would have allowed \$552,000.

[364] Section 2.500 of the CCRG provides:

2.500 ABNORMAL COSTS OF CONSTRUCTION

In order to reduce uncertainty and improve assessment consistency among regulated properties the following assumptions are made to describe normal conditions for the construction of regulated property:

- *an adequate labour force is readily available at the worksite,*

...

- *premium payments are not made for overtime worked.*

...

Abnormal costs can result from delays in construction caused by natural disasters or inclement weather or they may occur when the construction workforce is on site but a lack of supplies or a work slowdown reduces or stops actual construction. Additional costs incurred because of unproductive labour are excluded.

Two additional examples of abnormal costs are:

- *a cost that would typically not be incurred in a balanced market, and/or*

...

[365] CNRL claimed the night shift costs were abnormal costs pursuant to section 2.500 of the CCRG, claiming that it would not have had to incur these costs in a balanced market. The evidence at Exhibit C43, Tab 37 indicated that CNRL's contractors implemented double shifts which included night shifts to try to recover from the delays the project was experiencing. The change orders identify night shift premiums and costs associated with night shifts.

[366] In Exhibit R47 at Tab 10.4 pages 58-59/85, the Board notes that Mr. Elzinga has, for a series of line items, applied consistent percentages of 0% to 50%. Page 59/85 lists 0% as being attributed to Account 26, while Exhibit R98 attributes 50%. The Board was provided with insufficient evidence to justify the percentages attributed by the Municipality. The Board accepts the evidence of CNRL that in a balanced market, it would not have needed to incur these night shift costs to recover from delay. Therefore, the Board finds that \$1,105,000 should be excluded as abnormal costs due to night shift work.

#28 All costs of exercise programs to improve worker productivity or safety

[367] The Board notes that the claim for excluded costs for Exercise Program is highlighted as being contested. The Board further notes that the amount in both CNRL's claim and in the revised assessment sought to be upheld by the Municipality is \$212,000. It appears that this line item is highlighted due to the fact that the independent review by Mr. Elzinga sets out his determination that the permitted excluded claim should be \$0.

[368] The position of the Municipality repeated throughout the hearing was that it was seeking to uphold the revised assessment and that the analysis conducted by its witnesses was an independent review which showed that the revised assessment value was justified. The Municipality indicated that it was not seeking to change the revised assessment to the values set out in this independent analysis, but was using it to show the overall accuracy of the revised assessment. Given this position by the Municipality, the Municipality cannot now seek to justify the change to this line item based upon the independent assessment. Therefore, the Board accepts the excluded cost claim for Exercise Programs (line #28) in the sum of \$212,000.

#29 Extra costs resulting from labour material or equipment delays

[369] CNRL seeks to exclude the sum of \$883,968,000 as an abnormal cost to reflect the fact that CNRL experienced cost escalations due to delays, rework and increased construction labour costs. The assessment excluded \$702,926,000 while Mr. Elzinga would have allowed \$441,903,000 under this heading.

[370] Section 2.500 of the CCRG states:

2.500 ABNORMAL COSTS OF CONSTRUCTION

...

Abnormal costs can result from delays in construction caused by natural disasters or inclement weather or they may occur when the construction workforce is on site but a lack of supplies or a work slowdown reduces or stops actual construction. Additional costs incurred because of unproductive labour are excluded.

[371] CNRL indicated that the project cost escalated by approximately \$3 billion. It conducted an analysis of the change orders presented to it by its contractors and claimed approximately 30% of the escalated costs as abnormal under section 2.500 of the CCRG. During her evidence, Ms. Zeidler highlighted the major causes of construction delays and cost overruns.

[372] CNRL's claim is comprised of approximately \$790 million resulting from an analysis of the individual change orders, and \$94 million resulting from a risk model included in the lump sum contracts. In his evidence, Mr. Celis lead the Board through a listing of the change orders representing 97% of the claim (see Exhibit C69, slides 68-127).

[373] In his evidence, Mr. Elzinga indicated that in his independent analysis⁹, the distribution of costs between included and excluded in account 29 were difficult to determine. He acknowledged that some of the costs were clearly construction related, but that it was a challenge to allocate the difference between delay costs for normal or typical activities and the Horizon Project. In his evidence, he indicated that a number of costs needed to be changed from excluded to included, but due to the difficulty in accurately identifying the difference, he applied a "conservative approach" and applied an adjustment of 50% to these types of abnormal delay costs claims account 29. However, the Board notes that the assessor accepted 80% of CNRL's excluded cost claim (\$702,926,000).

[374] The Board has carefully examined the evidence presented by CNRL, specifically from Ms. Zeidler and Mr. Celis and has compared it to the evidence presented on behalf of the Municipality. From the Board's review, CNRL has presented sufficient evidence to justify its claim for delay costs as set out in account 29. For the Board to confirm the value of the excluded costs for account 29 as set out in the assessment, the Board would have had to be provided with some evidence which established how the assessor determined that 80% of CNRL's claim was appropriate (and, conversely, why 20% was an included cost). However, the Municipality's evidence was that only 50% of the claim for excluded costs was appropriate, not the 80% determined by the assessor. The evidence presented by the Municipality was more general in

⁹ (Exhibit R47, Tab 10.4, page 11-/85),

nature, with statements such as “some defined costs are clearly construction related activities”, but without a specific explanation for the Board to understand which costs and why. The Municipality has stated that CNRL provided insufficient information to support its claim, but then appears to permit 50% of the cost claim. CNRL has provided specific change orders and has outlined its rationale for its excluded cost claim. The evidence presented by the Municipality is more general in nature, and while it claims that CNRL has failed to meet its evidentiary burden, it has not given the Board sufficient particular justification for a finding in this regard. Therefore, the Board accepts the evidence of CNRL. The excluded cost claim of \$883,968,000 is accepted in whole.

#30 Abnormal costs due to inclement weather conditions (i.e., temperature, snow/rainfall)

[375] CNRL seeks to have excluded the sum of \$36,938,000 as an abnormal cost due to inclement weather. The assessment permitted \$18,469,000 and Mr. Elzinga would have allowed the same amount as an abnormal cost.

[376] Section 2.500 of the CCRG states:

2.500 ABNORMAL COSTS OF CONSTRUCTION

...

Abnormal costs can result from delays in construction caused by natural disasters or inclement weather or they may occur when the construction workforce is on site but a lack of supplies or a work slowdown reduces or stops actual construction. Additional costs incurred because of unproductive labour are excluded.

[377] Page 11 of the Interpretive Guide states:

Abnormal costs can result from delays in construction caused by natural disasters or inclement weather. Abnormal costs may also occur when the construction workforce is on site, but a lack of supplies or a work slowdown reduces or stops actual construction

[378] Exhibit C43, Tab 31 sets out the justification for the claim for excluded costs due to weather conditions. The Board notes that the justification for this includes both weather and delay factors. The Board is not convinced on the evidence that CNRL has established that the entirety of this claim is as a result of abnormal weather conditions. Construction in Alberta allows for winter work, and the Board notes that an allowance has been made by the assessor for abnormal weather in the sum of \$18,469,000. The Board has not been convinced on the evidence presented by CNRL that the assessor erred in his interpretation of this excluded cost claim and therefore accepts the sum of \$18,469,000 as an excluded cost due to weather.

#32 Abnormal rental/freight costs (i.e., heavy lift cranes in short supply)

[379] The Board notes that the claim for excluded costs for abnormal rental/freight is highlighted on both C98 and R102 as being contested. The Board further notes that the amount in both CNRL’s claim and in the revised assessment sought to be upheld by the Municipality is

\$2,381,000. It appears that this line item is highlighted due to the fact that the independent review by Mr. Elzinga sets out his determination that the permitted excluded claim should be \$0.

[380] The position of the Municipality repeated throughout the hearing was that it was seeking to uphold the revised assessment and that the analysis conducted by its witnesses was an independent review which showed that the revised assessment value was justified. The Municipality indicated that it was not seeking to change the revised assessment to the values set out in this independent analysis, but was using it to show the overall accuracy of the revised assessment. Given this position by the Municipality, the Municipality cannot now seek to justify the change to this line item based upon the independent assessment. Therefore, the Board accepts the excluded cost claim for abnormal rental/freight (line #32) in the sum of \$2,381,000.

#34 Computer Hardware/Software not used to operate the plant

[381] CNRL seeks to exclude the sum of \$7,974,000 as an excluded cost for computer hardware/software not used to operate the plant. The assessment permitted \$7,915,000 and according to Exhibit C98, Mr. Elzinga would have allowed the sum of \$3,987,000 as an excluded cost. Exhibit R102 shows Mr. Elzinga as allowing the sum of \$8,433,000 as an excluded cost. However, this may be an error, as Exhibit R47, Tab 10.4, page 10/85 shows Mr. Elzinga as allowing \$3,987,000 as an excluded cost.

[382] Section 2.300.900 of the CCRG states:

2.300.900 COMPUTER COSTS

Hardware and software computer costs that are not used, or intended to be used, as part of or in connection with the property being assessed, but are necessary to support the business activities carried on at the facility, such as accounting and personnel, are excluded.

[383] The Interpretive Guide states at page 9:

COMPUTER COSTS

The computer costs, hardware and software, incurred during construction to monitor and control construction are included.

The computer costs, hardware and software that are an integral part of an operational unit, for example incurred to monitor, operate and/or control processing systems and equipment, are included. (See also: Excluded Computer Costs, page 11.)

[384] At page 11, in addressing the issue of excluded costs, the Interpretive Guide states:

COMPUTER COSTS

The computer costs, hardware and software, not required to operate the facility but necessary to support the business activities carried on at the facility, for example accounting and personnel are excluded. (See also: Included Computer Costs, page 9.)

[385] At exhibit C43, Tab 35, CNRL provided its justification for the exclusion of computer costs. The Board preferred the evidence of CNRL. The Board notes that there was no

explanation given from the assessor as to why only 1% of these costs were not accepted as part of the assessment. The Board heard evidence from CNRL that these computer items were required to support CNRL's business activities and there was no evidence to contradict that. In the absence of a justification for the refusal by the assessor to accept 1% of these costs, the Board is prepared to find that \$7,974,000 is an excluded cost for computer hardware or software not used to operate the plant.

#36 Temporary facilities and services

[386] CNRL seeks to exclude the sum of \$11,888,000 as an excluded cost for temporary facilities. The assessment permitted \$275,000 and Mr. Elzinga would have allowed the sum of \$5,913,000 as an excluded cost.

[387] Section 1.100 of the CCRG provides that temporary facilities are part of the direct costs:

Direct costs include but are not limited to:

...

- *temporary facilities,*

[388] The Interpretive Guide states at page 8 states:

TEMPORARY FACILITIES

The costs of constructing improvements erected as part of construction and removed following construction, for example offices, warehouses, staff quarters, boundary fencing, and security fences are included. The construction costs of temporary utilities and services are also included.

The construction costs of temporary facilities that are assessed separately from the facility are excluded from the facility's construction cost. When one of these temporary facilities is removed, the remaining net cost is added to the construction cost of the facility. For example:

Assessable cost \$300,000

Cost recovered from sale \$200,000

*Net cost added to the
facility construction cost \$100,000*

In the case of temporary facilities that are leased, the net lease costs are included.

Temporary camp facilities will be assessed separately as long as they are located on the site.

[389] CNRL's position is that even though the cost for temporary facilities could be an included cost pursuant to CCRG, these costs should be excluded as being an abnormal cost – one that would not be incurred by CNRL should it have constructed its facility in the Edmonton region.¹⁰ CNRL's position was that the lay down area, warehouses, office trailers, lunch rooms and washroom trailers would be abnormal based on Edmonton conditions and they should be excluded as not normally occurring if the project were in the Edmonton area.

¹⁰ Exhibit C43, Tab 34.

[390] The Board notes that notwithstanding the express inclusion of temporary facilities as a direct cost, CNRL's justification for the exclusion of these temporary costs is based upon section 2.500.200 of the CCRG which states:

The costs of transporting raw material and components from the Edmonton area to the work site are excluded. However, if the actual transportation costs from the point of origin to the plant site are equal to or less than the cost to the Edmonton area, the entire transportation costs are included.

[391] The Board was not provided with convincing rationale as to how the CCRG provisions dealing with transportation from the Edmonton area translate to an exclusion for temporary facilities, nor how this provision overrides the express wording providing that temporary facilities are direct costs of construction. Further, CNRL provided no evidence that a similar project of a similar size (several hundreds of acres), even if constructed in Edmonton would not require the types of temporary facilities which CNRL built. The Board has not been convinced by the evidence presented by CNRL that the assessor erred in excluding only \$275,000 for temporary facilities, and the Board accepts the amount on the revised assessment as the excluded costs for temporary facilities (\$275,000).

#39 Interference costs (i.e., extra costs due to existing plant facilities)

[392] The Board notes that the claim for excluded costs for Interference costs is highlighted on both C98 and R102 as being contested. The Board further notes that the amount in both CNRL's claim and in the revised assessment sought to be upheld by the Municipality is \$776,000. It appears that this line item is highlighted due to the fact that the independent review by Mr. Elzinga sets out his determination that the permitted excluded claim should be \$388,000.

[393] The position of the Municipality repeated throughout the hearing was that it was seeking to uphold the revised assessment and that the analysis conducted by its witnesses was an independent review which showed that the revised assessment value was justified. The Municipality indicated that it was not seeking to change the revised assessment to the values set out in this independent analysis, but was using it to show the overall accuracy of the revised assessment. Given this position by the Municipality, the Municipality cannot now seek to justify the change to this line item based upon the independent assessment. Therefore, the Board accepts the excluded cost claim for Interference costs (Account #39) in the sum of \$776,000.

#40 Over-built or under-utilized improvements

[394] CNRL seeks to exclude the sum of \$26,664,000 as an excluded cost for over-built or under-utilized improvements. The assessment permitted \$7,074,000 and Mr. Elzinga would have allowed the sum of \$1,314,000 as an excluded cost.

[395] There is no compelling evidence to cause the Board to alter this allowance. Reading of C51 does not specifically state that it is \$25.6 million or \$7 million that is being claimed. It appears that \$19 million might have been transferred from this claim to the costs for Phases 2 and 3 but that is not clear. Exhibit C98 and the CNRL report summary still show a claim of the order of \$26 million.

[396] At Tab 10.4 of R47, it is claimed that the total amount is already accounted for in the Phases 2 and 3 adjustment. There was no reference to where that adjustment might be found in evidence.

[397] The Board finds that the excluded amount of \$7,074,000 reflected in the revised assessment should not be varied.

#42 Business Unit Owner's costs (not directly related to construction activities)

#42 Overall Owner's Costs (not directly related to construction activities)

[398] CNRL seeks to exclude the sum of \$807,527,000 as an excluded cost for Business Unit Owners' costs (not directly related to construction activities). The assessment permitted \$522,736,000 as an excluded cost and Mr. Elzinga would have allowed the sum of \$594,769,000 as an excluded cost.

[399] Also in relation to owner's costs, CNRL seeks to exclude the sum of \$606,702,000 as an excluded cost for Overall Owners' costs (not directly related to construction activities). The assessment permitted \$385,066,000 and Mr. Elzinga would also have allowed the sum of \$340,588,000 as an excluded cost.¹¹

[400] The Board will examine CNRL's claim for excluded costs for these two areas together as both require the Board to examine section 1.000 of the CCRG which provides some guidance in determining the costs to be included when determining assessable costs.

[401] CNRL's position is that the costs reported by it for account 42 were not related to the construction of the Horizon Project and are therefore not to be included in the assessable costs based upon its interpretation of the CCRG. CNRL's position is that the total project costs can be split broadly into two categories: those related to facility construction; and those related to facility operation.

[402] CNRL subdivided its facility construction costs into two categories: those incurred by contractors (including both direct and indirect costs); and those incurred directly by CNRL, for exempt items like the Raw Water Pond¹², or for assessable activities like security, safety, quality assurance, and permits. The costs for facilities operation – which includes establishing the headquarters, as well as commissioning and other start-up costs, etc. should be excluded costs. In its analysis, CNRL urges a more restrictive reading of section 1.000. It suggests that costs of construction are either:

- a. costs referenced in an agreement between CNRL and its contractors for the construction of a facility; or
- b. costs incurred by CNRL directly in the construction of a facility.

¹¹ The evidence in relation to Owner's Costs is found at Exhibits C42, C43, Binder 2/3 at Tabs 16 and 17, C39 (Owner's Cost Tab), C40 at page 53, R47 at Tabs 10.6 and 10.7.

¹² Exempt due to section 298.1 of the MGA.

[403] CNRL's witnesses urged the Board to find that the Owner's Costs were not incurred for "constructing the facility", and; therefore, should be excluded.

[404] The Municipality's position is that the CCRG does not identify "owner's costs" as abnormal or excluded costs and therefore, any owner's costs associated with normal or included costs are to be included. In its analysis, it has examined each of the cost categories under which CNRL has claimed excluded costs, and provided its assessment.

[405] The Board must determine whether CNRL's claim for Owner's Costs (whether overall or in relation to Business Units) are "costs of construction" as set out in section 1.000 of the CCRG. The Board has not been provided with any cases, either from the Courts or from the Municipal Government Board, which assist in the interpretation of this portion of the CCRG.

[406] In determining the meaning of "costs of construction", the Board must use a purposive and contextual approach to the interpretation of the CCRG. The Board has reviewed the purpose of the CCRG and used a broad and purposive approach to interpreting it consistent with the Supreme Court of Canada's approach to statutory interpretation as confirmed in *United Taxi v. Calgary*, [2004] 1 SCR 485, 2004 SCC 19, at paras 6-8, and other cases¹³, which emphasize that the words of an enactment are to be read in their entire context and in their grammatical and ordinary sense harmoniously with the scheme of the Act, the object of the Act, and the intention of Parliament. This contextual approach requires that the Board assess the words in the entire context in which they have been used. This approach is also consistent with section 10 of the *Interpretation Act*, RSA 2000, c. I-8, which provides that every provincial enactment shall be given a fair, large and liberal construction and interpretation that best ensures the attainment of its objects.

[407] Section 1.000 of the CCRG states:

1.000 COSTS TO BE INCLUDED IN DETERMINING ASSESSABLE COSTS

The costs of construction reported by the company to the assessor are the actual expenditures made in constructing the facility as referenced in the agreement with the contractor or as incurred directly by the company.

Construction costs include both direct and indirect costs.

[408] The CCRG does define the word "contractor", "construction" or "costs". Page 1 of the Interpretive Guide provides almost identical wording in dealing with the costs of construction.

ASSESSABLE COSTS

The costs of construction to be reported by the company to the assessor are the actual expenditures made in constructing the facility, as referenced in an agreement with the contractor or as incurred by the owner.

¹³ *Bell ExpressVu Limited Partnership v. Rex*, [2002] 2 SCR 559, 2002 SCC 42, at para. 26, and *R. ex rel Merk v. International Association of Bridge, Structural, Ornamental and Reinforcing Iron Workers, Local 771*, [2005] 3 SCR 425, 2005 SCC 70 (SCC.), at para 18.

Construction costs include all costs of materials and labour required to construct an industrial facility, including the costs required to install production machinery and equipment.

In addition to construction costs directly attributable to the project, reported costs include indirect costs assigned to the project.

Not all construction costs associated with a project are included in the determination of assessable cost. (See Assessable Costs diagram page 5.)

[409] The Interpretive Guide does contain the following definitions in its glossary.

Contractor	<i>The person or firm designated by the contract as responsible for the overall construction of the facility.</i>
Cost	<i>Generally used in appraisal to mean the expenditures, direct and indirect [overhead], of constructing an improvement. International Association of Assessing Officers (IAAO), Glossary for Property Appraisal and Assessment, page 34.</i>

[410] The on-line Merriam-Webster dictionary¹⁴ defines “construction” as:

- 1: the act or result of construing, interpreting, or explaining
- 2a : the process, art, or manner of constructing something; also : a thing constructed b : the construction industry <working in construction>
- 3: the arrangement and connection of words or groups of words in a sentence : syntactical arrangement
- 4: a sculpture that is put together out of separate pieces of often disparate materials

And “construct” as:

1. to build or form by putting together parts; frame; devise.
 2. Geometry . to draw (a figure) fulfilling certain given conditions.
- noun
3. something constructed.
 4. an image, idea, or theory, especially a complex one formed from a number of simpler elements.

[411] Using a purposive interpretation, the Board notes that the items listed as both direct and indirect costs under section 1.100 of the CCRG are costs which relate to the “erection of bricks and mortar”. The Board also notes that the list of direct and indirect costs is not exhaustive. By contrast, the costs excluded under section 2.000 of the CCRG are costs that either do not relate to the “erection of bricks and mortar”; which do not have as close a nexus to the bricks and mortar; or which are used for the business activities, for instance, 2.300.900, the computer or personnel costs. The Board understands the purpose of the CCRG to provide guidance for those costs for construction or more closely related to construction to be included as an assessable cost. Reading the entire CCRG, there does not appear to be an intention to catch the costs of operating the facilities.

¹⁴ <http://www.merriam-webster.com/dictionary/construct>

[412] In order to assess the items claimed by CNRL, the Board will need to examine each of the headings of costs claimed to determine if there is a sufficient nexus to the construction of the facility that the costs should be an included cost.

[413] For both the Overall Owner's Costs and the Owner's Costs by Business Unit, the Board notes that the Municipality has stated that CNRL has provided little documentation in support of its claim. However, the Board notes that the uncontradicted evidence of CNRL was that it offered the assessor the opportunity to come to CNRL to review any documentation he required. Further, the Board notes that the Municipality did not compel CNRL to produce any documentation using its powers in section 295. Therefore, the Board is not prepared to draw a negative inference against CNRL. It will, however, have to decide whether the evidence CNRL has provided is sufficient to justify its claims for excluded costs.

Overall Owner's Cost – CNRL Claim \$606,702,000

[414] In relation to Overall Owner's costs, CNRL's claim is broken down into 45 areas as shown in C63 at the "Owner's Cost Review Overall Unit Owner's Cost tab of the excel spreadsheet. Although the Board was not presented with the assessor's rationale, it did have Mr. Elzinga's evidence in relation to those items which he would have accepted 100% as excluded costs. Those items over which there was no dispute included the following:

	Description	Excluded Cost Claim (In millions)
a.	Regulatory	5.245
b.	Environmental monitoring	17.678
c.	Stakeholder Relations	7.623
d.	Staffing & Development	76.216
e.	Training	5.608
f.	Tailings Pond - Incident	No dollar value set out in C63
g.	Rotating Equipment Eng.	3.0
h.	Laboratory Services	1.527
i.	Transportation & Logistics	1.917
j.	Bus. Sys - JDE Implementation	5.656
k.	Fort McMurray Office	1.215
l.	Flights & Aerodrome Ops	12.179
	TOTAL	25.494

[415] Since the parties are in agreement with the above items, the Board accepts that these claims are excluded costs claims.

[416] The Board then turns to those items for which there is not agreement between the parties.

[417] For the following claims, the Municipality has advised that it is contesting the claim, with the exception of portions which are identified in specific sections of the CCRG:

- a. Legal Services,
- b. Human Resources
- c. Accounting
- d. Accounting Projects
- e. Information Technology General
- f. Information Technology Infrastructure
- g. Information Technology Applications
- h. Information Technology Business Sys.
- i. Common Services

[418] The Board was given no specific rationale for the selection of the percentages. When examining these claims, the Board notes that the purpose of the CCRG is to include as assessable costs those costs of construction and those costs which are sufficiently directly linked to construction such that they should be included in assessable costs. The evidence from CNRL was that these costs were due to the creation of Horizon, and would not be a normal cost. The Board does not believe that these costs are sufficiently linked to construction to be included costs and it is not persuaded by the evidence put forward by the Municipality in this regard.

[419] For the balance of the claims for Owner's costs overall, excepting security and risk management, the Board accepts the evidence of Ms. Zeidler and Mr. Celis that these costs were incurred by CNRL to establish or operate the new operating company, and, therefore, are not costs of construction and should not form part of the included costs. The Board finds that the evidence presented by CNRL supports its position. The evidence of CNRL's witnesses was that during meetings with Mr. Schmidt, they went over these items. The Board was not convinced by the general evidence of the Municipality, in the face of the more specific evidence presented by CNRL.

[420] For security and risk management, the Board notes that security is listed specifically as an indirect cost in the CCRG, and that Mr. Celis conceded that security should be an included cost. The Board finds that risk management is an included cost. There was no evidence before the Board for it to make any other decision for this item.

[421] Therefore, the Board accepts CNRL's claim for Overall Owner's costs in the amount of \$586,816,000 (\$606,702,000 less \$16,842,000 for the disallowed security claim and less \$3,044,000 for the disallowed Risk Management claim).

Owner's Costs by Business Unit– CNRL Claim \$807,527,000

[422] In relation to Owner's costs by Business Unit, CRNL's claim is broken down into the approximately 46 areas as shown in C63 at the "Owner's Cost Business Unit" tab of the excel spreadsheet. Although the Board was not presented with the assessor's rationale, it did have Mr. Elzinga's evidence in relation to those items which he would have accepted 100% as excluded costs. Those items over which there was no dispute included the following:

- a. Temporary Relocation
- b. Foreign Assignments
- c. Living Out Allowances
- d. Technology R & D
- e. Testing Devices, Lab. Equipment
- f. Travel Expenses
- g. Meals and Business Communications
- h. Camp Services
- i. Computer Software
- j. Bussing – Contractors
- k. Plant Capital (Capital Spares)
- l. EMS and Mobile Equipment Purchase
- m. Registration and Fees
- n. Site Wellness Centre
- o. Interest Expense
- p. Income Tax Credit
- q. Commissioning and Start-up Costs

[423] The above totals \$295,834,000 of the excluded cost claim. Since there is agreement between the parties on these items, the Board will not examine these claims in more detail.

[424] The Owner's Costs by Business Unit over which there is a dispute are the following:

- a. Staff Salaries and Benefits
- b. Contract and Consultant Services
- c. Air Impact Monitoring
- d. Construction Management
- e. Modelling and Simulation
- f. Furniture and Fixtures
- g. General Office Expenses
- h. Office Equipment
- i. Communications and Radios
- j. Safety
- k. Clothing and Coveralls
- l. Misc and Sundry
- m. Natural Gas
- n. Electricity
- o. Propane
- p. Waste Management

- q. Site Trailer Rentals
- r. Facility Support Equipment
- s. Custom Broker

[425] The evidence from CNRL was that the following items:

- a. Staff Salaries and Benefits
- b. Contract and Consultant Services
- c. Furniture and Fixtures
- d. General Office Expenses
- e. Office Equipment
- f. Communications and Radios
- g. Safety
- h. Clothing and Coveralls
- i. Misc and Sundry
- j. Waste Management
- k. Site Trailer Rentals
- l. Facility Support Equipment

were for Horizon staff not involved with construction. Although the evidence from Dr. Thompson and Mr. Elzinga was that these costs are generally costs of construction, the Board prefers the evidence from CNRL on the basis that CNRL was establishing HCML. Although CNRL did incur these costs, due to the establishment of HCML, these costs should be excluded as not related to construction of the machinery and equipment.

[426] The Board finds that the costs for the following items:

- a. Natural Gas
- b. Electricity
- c. Propane

were incurred for the camps and the Horizon offices. Therefore, the Board finds these are not costs related to construction and are to be excluded.

[427] The Board finds that the costs for the following items:

- a. Air Impact Monitoring
- b. Construction Management
- c. Modelling and Simulation

were costs incurred for operations. The Board accepts the more specific evidence of CNRL that the construction management was to manage the non-assessable construction, such as the mine and main access roads. Therefore, such costs are excluded costs.

[428] The Board finds that the costs for Custom Broker is expressly excluded pursuant to section 2.300.700 of the CCRG.

2.300.700 IMPORT DUTY AND BROKER FEES

The duty and fees levied on an imported component that increase its cost above the cost of a comparable component made in Canada, are excluded.

[429] Based upon the above, the Board accepts \$807,527,000 as an excluded cost claim for Owner's Cost by Business Unit.

#45 Material or Equipment Cost "Spikes"

[430] CNRL seeks to deduct the sum of \$13,765,000 as an excluded cost for material or equipment cost spikes. The assessment permitted \$0 and Mr. Elzinga would also have allowed the sum of \$0 as an excluded cost.

[431] At page 1190 of Tab B, Exhibit C39, Mr. Stowell indicated that the justification for cost spikes is an unusual increase for the cost of material or equipment.

Unusual increases in the cost of material or equipment experienced by CNRL or its contractors can be considered abnormal if it can be proven that they are in fact over and above cost increases that would typically occur in a "balanced market".

Note:- Published data from any source that will help substantiate our claims for these excess costs should be gathered and included in the property assessment report.

[432] The quote from Mr. Stowell relates to cost increases over and above normal cost increases. In exhibit C43 and in his oral testimony, Mr. Celis addresses a change order (40051318) to a contract where CNRL would be responsible to pay for raw material price increases. The claim of \$5.9 million is not said to be an increase over and above a normal increase. The other two work orders in C43, Tab 33 relate to "ineffective execution of work" and delays. There was little in the way of explanation of how these related to cost spikes.

[433] As a result of the non-compelling evidence, the Board will make no adjustment to the revised assessment for this item.

#46 Project costs not directly related to the Construction of "Improvements"

[434] CNRL seeks to exclude the sum of \$160,167,000 as an excluded cost for project costs not related to the construction of improvements. The assessment permitted \$129,508,000 and Mr. Elzinga would have allowed the sum of \$137,964,000 as an excluded cost.

[435] The main change orders identified as account 46 were in Mining Business Unit at \$32.3 million; East Tank Farm (Plant 73) at \$10 million; Labour Disruption Management (Plant 97) at

\$4.2 million; Common Services (Plant 98) at \$49 million; and Common Services costs adjustment (Camp & Busing) at \$57 million.¹⁵

[436] Mr. Celis' evidence was that the \$10 million allocated to the east tank farm was in dispute as was \$14 million of the \$57 million for the common services costs adjustment.

[437] In the response to CNRL's Section 299 request, the Municipality had little to say about this item. The assessor excluded \$129,508,000 which leaves \$30,659,000 in dispute. In Business Unit 71 (Main Pipe Rack), a total of \$932,000 had been claimed by CNRL as an excluded cost. The explanation for one year (\$338,000) was: \$12.5K – Administrative Assistant; \$50K – Technical Report and \$275K – Unforeseen Events. The comments in the response indicated that \$338,000 was not an exclusion, stating *"This supportive material demonstrates that these activities are construction related and are therefore included in the assessment analysis."* There was no further explanation. In Business Unit 73 (East Tank Farm), the total claim by CNRL was \$10,058,000. For one year, the assessor's explanation was: Misc. changes \$226,219 – No work done; Reconcile Fluor P.O. \$13,850 – Not const. related; Reconcile Fluor P.O. \$37,837 – Not const. related; Tank 1C demolition \$12,000 – Equip. removal; Tank Farm incidentals \$250,000 – Remove damaged tank; East Tank Farm incidentals \$1,034,210 – Remove damaged tank and Equipment preservation \$57,915 – Demolition. The assessor's comment was *"These are construction related activities and are included costs."* For the other year, the CNRL explanation was: \$8,426,158 – Add funds for final settlement, Aged payables @ 10.4 M plus holdback amount retained @ 1.9 M, att. 1-73/08. The assessor's comment was: *"Limited value to the supporting documentation, thus, these costs are considered included."* These comments cover \$10,396,000 of the \$30,659,000 that is in dispute.

[438] Dr. Thompson and Mr. Elzinga worked together on the analysis of CNRL's filings and documentation regarding this and the remainder of the 46 items for exclusion consideration. In their evidence, they dealt with a few of the business units where excluded cost claims were made. Overriding the positions of these witnesses was their view that the CNRL costs needed to be adjusted in order to be said to be normal or typical costs. The Board has already decided on this matter and ruled that such adjustments are not to be made. The witnesses testified about the poor quality and limited usefulness of the cell notes in Mr. Celis' cost report but after their review, they were able to classify CNRL claims as: 100% excluded, 100% included, 80% excluded or 50% excluded. In their analysis of a few of the item 46 claims, they determined that the 50% excluded classification would be applied because *"This is a reasonable and conservative approach."*

[439] The Board finds that the entire \$160,167,000 is excluded for this item. The Complainant provided change order details and explanations for the claims by business unit. While more detail would have been useful in some areas, the Respondent assessor and expert witnesses chose to make decisions on what had been provided. These individuals all make adjustments that were unsupported and arbitrary. The Board finds that the costs associated with the damaged tank in the East Tank Farm are an obvious example of an abnormal or atypical cost. Spending that sum of money did nothing to enhance the operations or value of the facility. It surely was not a situation that is common to construction of other similar facilities. Yet, the assessor chose to

¹⁵ Exhibit C43, Tab 21.

include 100% of those costs while Mr. Elzinga included 50%. While some of the claims might have been considered differently with more detail provided by CNRL, the Respondent has provided nothing that assists the Board in considering components of the total claim.

5. How is equity addressed in this appeal? Who bears the onus?

[440] The parties presented arguments about the application of equity in relation to regulated property assessment.

[441] Section 293(1) and (2) of the *Municipal Government Act* state:

Duties of assessors

293(1) In preparing an assessment, the assessor must, in a fair and equitable manner,

(a) apply the valuation and other standards set out in the regulations, and

(b) follow the procedures set out in the regulations.

(2) If there are no procedures set out in the regulations for preparing assessments, the assessor must take into consideration assessments of similar property in the same municipality in which the property that is being assessed is located.

[442] It is clear that section 293(1) imposes upon the assessor an obligation to apply the standards set out in the regulations and follow the procedures in the regulations in a fair and equitable manner.

[443] On a plain reading of section 293(2), the assessor need not take into account assessments of similar property in the same municipality unless there are no procedures in the regulations for the preparation of assessments. However, in the present case, the Minister's Guidelines, and the CCRG are the regulations to be utilized for the preparation of an assessment for machinery and equipment. Therefore, section 293(2) is not applicable for the assessor.

[444] While both parties argue that equity is important in the preparation of regulated property assessments, the question before the Board is how is equity to be achieved when the MGA does not expressly require the assessor to take into consideration the assessments of similar property.

[445] The Board believes the answer lies in section 467 of the MGA.

467(1) An assessment review board may, with respect to any matter referred to in section 460(5), make a change to an assessment roll or tax roll or decide that no change is required.

(2) An assessment review board must dismiss a complaint that was not made within the proper time or that does not comply with section 460(7).

(3) An assessment review board must not alter any assessment that is fair and equitable, taking into consideration

(a) the valuation and other standards set out in the regulations,

(b) the procedures set out in the regulations, and

(c) the assessments of similar property or businesses in the same municipality.

(4) An assessment review board must not alter any assessment of farm land, machinery and equipment or railway property that has been prepared correctly in accordance with the regulations.

[446] The jurisdiction of this Board is to make a change to an assessment roll or to decide that no change is required. Section 467(4) provides that the Board must not alter any assessment of machinery and equipment that has been prepared correctly in accordance with the regulations. Therefore, a decision by the Board to change a regulated assessment must be founded upon a determination by the Board that the assessment has not been prepared properly, fairly and equitably in accordance with the regulations.

[447] Section 467(3) imposes on the Board an obligation to leave an assessment which is fair and equitable having taken into consideration the standards set out in the regulations, the procedures set out in the regulations and the assessments of similar property or business in the same municipality. Therefore, although section 293(2) does not apply because of the presence of regulations and procedures contained in regulation, the Board pursuant to section 467(3) has a separate obligation to consider equity for regulated assessments. Because this is a regulated assessment, equity is achieved, not by comparing the assessment amount from this Project to other projects, but by determining that the assessors' methodology of applying the regulations and procedures is not fair or equitable. Equity cannot be achieved by comparing one project to another because the costs incurred by one owner may not be costs incurred by another.

[448] This ties to the question of onus. The general proposition is that the party who asserts a proposition bears the onus. CNRL has challenged the amended assessment on the basis that it had not been prepared properly in accordance with the CCRG. CNRL lead evidence to establish its position that the assessment was not in accordance with the principles of the CCRG.

[449] Where CNRL raised a prima facie case, then the Municipality had an evidential burden to show the challenged assessment was prepared in accordance with the CCRG. The Board has weighed the evidence before it. Where the Board has made a determination that the assessment was not in accordance with the standards set out in the regulations (the CCRG and the Minister's Guidelines), the Board ordered a change to the excluded costs. To the extent that the Board has found that CNRL has not established that the assessor made an error in his determination of the excluded cost claims, then it has not made a change to the excluded cost claims.

[450] This is in accordance with the Board's understanding of its obligations under Section 467(4) which provides if an assessment has been prepared correctly in accordance with the regulations, the Board must not alter that assessment.

[451] It is so ordered.

Dated at the City of Calgary in the Province of Alberta, this 12th day of February, 2013.



W. Kipp, Presiding Officer

APPENDIX "A"**DOCUMENTS RECEIVED AND CONSIDERED BY THE CARB:****NO. ITEM**

Exhibit #	Document	Filed
R1	CNRL 2010 Assessment Complaint	April 28, 2011
R2	Originating Application	November 8, 2010
R3	Originating Application	February 2, 2011
R4	Notice of Decision re TransAlta Utilities Corporation v. Designated Linear Assessor for the Province of Alberta	
R5	CARB Board Order 007-2010-P	
R6	CARB Board Order 027-2010-P	
C7	Letter from Wilson Laycraft LLP to CARB	August 15, 2011
R8	Letter from Reynolds Mirth Richards & Farmer LLP to CARB	August 18, 2011
R9	Letter from Reynolds Mirth Richards & Farmer LLP to CARB (with attachments)	October 17, 2011
C10	Letter from Wilson Laycraft LLP to CARB	December 1, 2011
C11	Report of Kerry Minter - CNRL	January 31, 2012
C12	Legal Brief re: Section 465 – CNRL	January 31, 2012
R13	Letter of Response re: s. 465 Response – RMWB	February 15, 2012
R13	Board Order 004-2011 - RMWB	February 15, 2012
R13	Board Order 021-2011 - RMWB	February 15, 2012
R13	Board Order 023-2011 – RMWB	February 15, 2012
C14	Rebuttal to RMWB Response – CNRL	February 22, 2012
C15	Supplementary Brief re. s. 465 – CNRL	March 5, 2012
R16	Front End Loading Chart prepared by J. Elzinga – RMWB	March 15, 2012
R17	Respondent's Legal Argument re: s. 465 – RMWB	March 21, 2012

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Exhibit #	Document	Filed
R18	Respondent's Volume of Authorities s. 465 – RMWB	March 21, 2012
R19	The complete transcript for the direct examination, cross examination and Board question of Mr. Minter and Mr. van Waas from September 2010 Preliminary hearing. - RMWB	March 21, 2012
R20	Respondent's Volume of Documents, August 2010 - RMWB	March 21, 2012
R21	Respondent's Volume of Legislation, August 2010 - RMWB	March 21, 2012
R22	DOES NOT EXIST	
R23	Evidence Summary of H. van Waas, August 23, 2010 - RMWB	March 21, 2012
R24	Synopsis – Review of Project Costs (H. Schmidt/E. Thompson), August 23, 2010 - RMWB	March 21, 2012
R25	CNRL December 1, 2009 Cost Report - RMWB	March 21, 2012
R26	Joint Report on Issues, November 2010 – RMWB	March 21, 2012
R27	Report H. Schmidt, December 6 2010 – RMWB	March 21, 2012
R28	January 28, 2011 Letter to CARB from RMRF enclosing updated Exhibits PR1-PR4 – RMWB	March 21, 2012
R29	Report H. Schmidt, February 28, 2011 – RMWB	March 21, 2012
R30	Report E. Thompson, February 28, 2011 – RMWB	March 21, 2012
R31	Report H. Schmidt, April 20, 2011 – RMWB	March 21, 2012
R32	Report E. Thompson, April 20, 2011 – RMWB	March 21, 2012
R33	May 12, 2011 S. 299 Response	March 21, 2012
C34	Rebuttal to Respondents Legal Argument re: s. 465 – CNRL	March 28, 2012
T35	Legal Argument and Authorities re: s. 465 – Third Party (Sharek & Co.)	April 20, 2012
C36	Rebuttal to Third Parties Brief re: s. 465 – CNRL	April 27, 2012
R37	CNRL v. RMWB Decision of Justice Sulyma dated March 2012	June 20, 2012

REGIONAL MUNICIPALITY OF WOOD BUFFALO BOARD ORDER CARB 001/2013

Exhibit #	Document	Filed
C38	Legal Brief Merit Hearing – CNRL	January 31, 2012
C39	Report of Terry Stowell - CNRL	January 31, 2012
C40	Report of Ken Shaw - CNRL	January 31, 2012
C41	Report of Fumio Otsu - CNRL	January 31, 2012
C42	Report of Lynn Zeidler - CNRL	January 31, 2012
C43 1 of 3	Report of Marco Celis - CNRL	January 31, 2012
C43 2 of 3	Report of Marco Celis - CNRL	January 31, 2012
C43 3 of 3	Report of Marco Celis - CNRL	January 31, 2012
R44	Respondent's Legal Argument	May 31, 2012
R45	Respondent's Volume of Documents	May 31, 2012
R46	Respondent's Volume of Reference Material	May 31, 2012
R47	Witness Report of John Elzinga and Dr. Edward Thompson (Binder)	May 31, 2012
R48	Response to Reports Zeidler, Minter, Celis, Shaw, Stowell, Otsu and the Resume of John Elzinga and Dr. E. Thompson (Binder)	May 31, 2012
R49	Horizon Quarterly Report (CD)	May 31, 2012
C50	Rebuttal Legal Brief of the Complainant	June 29, 2012
C51	Rebuttal Response of M. Celis	June 29, 2012
C52	Rebuttal Response of K. Minter	June 29, 2012
C53	Rebuttal Response of L. Zeidler,	June 29, 2012
C54	Rebuttal Response of F. Otsu	June 29, 2012
C55	Rebuttal Response of K. Shaw (Ryan)	June 29, 2012
C56	Rebuttal Response of T. Stowell	June 29, 2012
C57	Authorities to Rebuttal Response of F. Otsu	June 29, 2012 (Received August 2012)

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Exhibit #	Document	Filed
C58 1 of 3	Consolidated Authorities of the Complainant	January 31, 2012
C58 2 of 3	Consolidated Authorities of the Complainant	January 31, 2012
C58 3 of 3	Consolidated Authorities of the Complainant	January 31, 2012
C59	CV of Kerry Minter	October 15, 2012
C60	CV of Lynn Zeidler	October 15, 2012
C61	CV of Marco Celis	October 15, 2012
C62	CV of Terry Stowell	October 15, 2012
C63	Rendition CD	October 15, 2012
C64	Materials to be referenced by Kerry Minter in his testimony during the hearing October 15 – November 23, 2012	October 15, 2012
C65	Zeidler Powerpoint	October 17, 2012
66	Witness Confidentiality Undertaking	October 18, 2012
C67	Lynn Zeidler Whiteboard drawing	October 18, 2012
R68	Reynolds Mirth Richards and Farmer Letter dated June 2011	October 23, 2012
C69	Marco Celis Powerpoint Presentation	October 24, 2012
C70	Summary spreadsheet from 2009 Rendition	October 24, 2012
C71	Owner's Cost Diagram	October 24, 2012
C72	Delay Costs Diagram	October 25, 2012
C73	Delay Illustration	October 25, 2012
C74	Disk File References	October 29, 2012
C75	Cell References	October 29, 2012
C76	Cross reference to Delay Slides	October 29, 2012
C77	Fumio Otsu Productivity model	October 29, 2012

Exhibit #	Document	Filed
C78	Fumio Otsu Ft. McMurray Baseline Budget Illustration	October 29, 2012
C79	Mid Alberta Baseline Adjustment	October 29, 2012
C80	Productivity Number Summary	October 30, 2012
C81	Productivity Factors in Alberta	October 30, 2012
C82	Amendment to Productivity Factors in Alberta	October 30, 2012
C83	Larger version of page 3, Tab 27, C43	October 30, 2012
R84 and R84A	Project Steps and Project Steps as amended by M. Celis	October 30, 2012
R85	Celis response to Romanian Pipe claim accepted	October 31, 2012
R86	Screen shot of C63 2009 Cost rendition Tab 31 Cell K43	October 31, 2012
R87	Horizon Estimating Tolerances	November 2, 2012
R88	Horizon Cost Increases	November 2, 2012
R89	Thompson Cost measurement of excess costs	November 5, 2012
R90	Thompson's view of construction timetable	November 5, 2012
R91	Thompson's response to C73	November 5, 2012
R92	Thompson's Productivity Model Calculations	November 6, 2012
R93	Thompson's Romanian Pipe Adjustment	November 7, 2012
R94	2010 Alberta Machinery & Equipment Assessment Minister's Guidelines	November 13, 2012
R95	Larger version of page 23/23 Tab 10.7 Exhibit R47	November 13, 2012
R96	Electronic version of Tab 9, R47 (Dr. Thompson)	November 15, 2012
C97	Lynn Zeidler Rebuttal Comments on R87	November 20, 2012
C98	CNRL position regarding numbers	November 21, 2012
R99	RMWB's Corrections to R47 Tab 10.6 Owner's Costs By Business Unit	November 22, 2012
R100	RMWB's Corrections to R47 Tab 9 Owner's Costs By Business Unit	November 22, 2012

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Exhibit #	Document	Filed
R101	RMWB's Correction to R47, Tab 1, page 3/3 resulting from information regarding Business Unit 33.1	November 22, 2012
R102	RMWB position regarding numbers	November 22, 2012
R103	Globexx Properties v. Edmonton (City) 2012 ABQB 651	November 22, 2012
R89	Thompson Cost measurement of excess costs	November 5, 2012
R90	Thompson's view of construction timetable	November 5, 2012
R91	Thompson's response to C73	November 5, 2012
R92	Thompson's Productivity Model Calculations	November 6, 2012
R93	Thompson's Romanian Pipe Adjustment	November 7, 2012
R94	2010 Alberta Machinery & Equipment Assessment Minister's Guidelines	November 13, 2012
R95	Larger version of page 23/23 Tab 10.7 Exhibit R47	November 13, 2012
R96	Electronic version of Tab 9, R47 (Dr. Thompson)	November 15, 2012
C97	Lynn Zeidler Rebuttal Comments on R87	November 20, 2012
C98	CNRL position regarding numbers	November 21, 2012
R99	RMWB's Corrections to R47 Tab 10.6 Owner's Costs By Business Unit	November 22, 2012
R100	RMWB's Corrections to R47 Tab 9 Owner's Costs By Business Unit	November 22, 2012
R101	RMWB's Correction to R47, Tab 1, page 3/3 resulting from information regarding Business Unit 33.1	November 22, 2012
R102	RMWB position regarding numbers	November 22, 2012
R103	Globexx Properties v. Edmonton (City) 2012 ABQB 651	November 22, 2012

APPENDIX “B” REPRESENTATIONS

PERSON APPEARING CAPACITY

1.	G. Ludwig	Counsel for the Complainant
2.	J. Laycraft	Counsel for the Complainant
3.	K. Minter	Supervisor of Operations Accounting, CNRL
4.	M. Celis	Business Analyst, CNRL
5.	L. Zeidler	Vice-President,
6.	T. Stowell	Assessment Consultant
7.	K. Shaw	Canadian Principal, Ryan Property Tax Services ULC
8.	F. Otsu	Project Review & Analysis, LLC
9.	B. Balog	Manager, Legal Corporate Operations, Legal Counsel, CNRL
10.	C. M. Zukiwski	Counsel for the Respondent
11.	C. Killick-Dzenick	Counsel for the Respondent
12.	B. Moore	Regional Assessor, Regional Municipality of Wood Buffalo
13.	R. Baron	Assistant Chief Assessor, Regional Municipality of Wood Buffalo
14.	E. Thompson	Engineering Consultant
15.	J. Elzinga	Assessment Consultant

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Subject	Type	Sub-type	Issue	Sub-issue
CARB				