

11-January, 2024

**IN THE MATTER OF THE YUKON ENERGY CORPORATION
2023-24 GENERAL RATE APPLICATION**

Heard before the

YUKON UTILITIES BOARD

EVIDENCE OF NATHANIEL YEE

Introduction / Brief Summary:

In the GRA, Yukon Energy has knowingly provided false information to the Board and to the public. This information, if accepted by the board, will affect (raise) rates for all customers.

The easiest example of this is the new rental diesel in Mayo. In the YESAB process for this installation, YEC asked for and received authorization for 4.9 MW from the 5 rental units installed. The Decision Document confirmed that this 4.9 MW limit applied in all situations, including N-1 and other emergencies as follows:

Maximum operating (production) capacity of 4.9 MW during peak demand (winter) and during N-1 emergencies¹

Despite knowing this hard limit of 4.9 MW even in emergencies, YEC submitted the GRA falsely claiming a 9 MW capacity from the Mayo facility.²

YEC has also claimed in this GRA and in their 2021 GRA that Section 49 of YESAA allows them to operate capacity that has not been assessed or permitted in N-1 or emergency situations. This is simply not true, as confirmed by the Department of Environment in a document submitted to YESAB dated July 20, 2023 for the Mayo rental diesels:

Regulatory Reminder

The regulator is unable to provide authorization to operate above the assessed capacity in the event of an emergency situation. The Environment Act and Air Emissions Regulations do not contain processes for managing emergency situations from a proponent or regulator perspective.³

In responses to my IRs, YEC confirmed that they were familiar with these statements from the Department of Environment, and modified them to change their meanings entirely. Bolding added.

Department of Environment statements referenced above from YESAB 2023-090 Mayo Rental Diesel:	YEC in IR responses:
Maximum operating (production) capacity of 4.9 MW during peak demand (winter) and during N-1 emergencies	<i>YEC will operate up to 4.9 MW capacity at any one time, including during winter peak hours while the remaining capacity is available during emergencies such as N-1 events.⁴</i>
<u>Regulatory Reminder</u> The regulator is unable to provide authorization to operate above the assessed capacity in the event of an emergency situation. The Environment Act and Air Emissions Regulations do not contain processes for managing emergency situations from a proponent or regulator perspective.	<i>While YEC understand there are provisions in YESAA to preclude the need for an assessment in the case of an emergency, there are no such provisions in the Environment Act or Air Emissions Regulations. As such, Yukon Energy would communicate with the Authority Having Jurisdiction for air emissions (Yukon Government – Environment Department) in the case of a requirement or occasion where any particular generating station anticipated exceeding or did in fact exceed its permitted operating capacity.⁵</i>

I am shocked that YEC would simply remove the (bolded) parts of the Department of Environment’s Regulatory Reminder and Decision Document that did not agree with what they wanted, and then claim

1 YESAB 2023-0090 Decision Document included as [Attachment A](#)
 2 2023 GRA pdf p.166: 20 rental units (36 MW) @1.8 MW each, and Mayo selected for 5 units, or 9 MW.
 3 YESAB 2023-0090 Department of Environment YESAB Assessment Comment included as [Attachment B](#)
 4 YEC IR Responses, Nov 29, 2023 p. 80 line 33 Response to NY-YEC-1-17
 5 YEC IR Responses, Nov 29, 2023 p. 81 line 11 Response to NY-YEC-1-17

something completely different, if perhaps more theatrical. In case of emergency, YEC will contact the Department of Environment and ask about running capacity that has not been assessed or permitted, though they already know the answer. And this is their emergency plan? False and altered regulatory information from a Crown corporation in the GRA process is entirely unacceptable.

In Mayo, YEC is limited to 4.9 MW even in N-1 emergencies. As elsewhere, YEC cannot operate any capacity that has not been assessed or permitted in any circumstances. This includes any capacity falsely claimed to be operable under Section 49 of YESAA and capacity with expired permits.

Of the 36 MW of rentals that YEC has claimed in the GRA⁶ for 2023-24, the operability of 16 MW is based on capacity that has not been assessed or permitted⁷, and is therefore inoperable as confirmed by the Regulatory Reminder from the Department of Environment above.

For 2024-25 it gets worse, with 21 MW of the 36 MW of rentals becoming inoperable.⁸

This means that YEC has missed N-1 planning criteria by approximately 15.4 MW in 2023, and 21.2 MW for 2024. This while claiming to the Board that N-1 has been met, and attempting to charge customers for a safety margin that they know does not exist.

Failing to meet N-1 and providing false information to the Board and to the public in the 2023 GRA are both very serious issues, and unfortunately not an isolated incidents. Along with more detail on the evidence provided above, I will also a look at YEC's course of conduct in having knowingly provided the same false information in the 2021 GRA, and approached permitting of the rentals in a reckless and imprudent manner since the first rentals in 2017. I will also highlight instances of YEC providing false information to the Department of Environment and to the public in Whitehorse, Faro and Mayo.

Specific to the 2023 GRA, YEC has:

- Failed to respect N-1 contingency capacity planning criteria, putting us all at risk;
- and
- provided false information to the Board and the public in the GRA;
- was aware that the information was false;
- intended that the board accept and act on this this false representation;
- and this would have (and has) raised rates for all customers.

Interestingly, these last four points seem to match up with how the Supreme Court of Canada has described the four elements of fraud:⁹

The tort of civil fraud has four elements, which must be proven on a balance of probabilities:

- (1) a false representation by the defendant;*
- (2) some level of knowledge of the falsehood of the representation on the part of the defendant (whether knowledge or recklessness);*
- (3) the false representation caused the plaintiff to act;*
- (4) the plaintiff's actions resulted in a loss.*

While it was not the original idea or structure of this document, keeping these four elements of fraud in mind makes for a clearer presentation. I would prefer that YEC focus on renewables rather than on rental diesel, but if YEC is set on a rental diesel future, it needs to be done correctly. Failure to develop renewable solutions does not justify failing to implement rental diesel correctly. There is no justification for false representation.

⁶ 2023 GRA pdf p. 166

⁷ Not assessed or operable: 4.1 MW from Mayo, 12 MW Whitehorse, as the special authorization for 12 MW in N-1 conditions in Whitehorse expired March 31, 2022. Emissions permit section 9 attached [Attachment C](#)

⁸ Diesel replacement adds 5.1 MW to Faro, but does not allow operation above 15.5 MW even in emergencies, despite YEC's claims.

⁹ Hryniak v. Mauldin, 2014 SCC 7 (CanLII), [2014] 1 SCR 87

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1) A 4.9 MW permit in Mayo is called 9 MW in the GRA.

YEC submitted an application to YESAB for 4.9 MW operating capacity for the Mayo rentals, and received a Decision Document reflecting this as the maximum capacity.

In this GRA however, YEC claims a capacity of 9 MW from this same installation.

YEC's YESAB application for 4.9 MW was designed to allow YEC to avoid an Executive Committee screening which is triggered at 5.0 MW. In the YESAB application process, YEC claimed that two of the five generators were "reserved for backup use only", like the "spares" in the 2021 GRA.

Accordingly, the Decision Document states: (bolding added)

- *Maximum operating (production) capacity of **4.9 MW during peak demand (winter) and during N-1 emergencies***
- *Up to two generators to be reserved for back-up use only¹⁰*

YEC's original plan was to slide through the YESAB for 4.9 MW and then claim 9 MW for N-1 purposes in the GRA using Section 49 of YESAA – "In response to an emergency"¹¹. This did not turn out well for YEC after they mentioned how they planned to use Section 49 in response to a YESAB IR, and the Department of Environment responded appropriately with the Regulatory Reminder.

Despite this, YEC has claims in the GRA that the 5 rentals in Mayo produce 9 MW, not mentioning the 4.9 MW limit as follows:

*To provide sufficient dependable capacity for the YIS during the W2023, **20 rental diesel units (36 MW)** are required to address the shortfall in required dependable capacity that the YIS permanent facilities can provide. **This is an increase of 5 required diesel rental units compared with the prior winter.***

*Existing rental diesel sites in Faro and Whitehorse have space for additional units, however current transformation capacity and air emission permitting are limiting the ability of those sites to house any additional rental units. Mayo is the remaining community served by YEC with existing diesel generation, and therefore **Mayo has been selected as the location for the five added diesel rentals needed for 2023.**¹²*

Simply said, YEC's permit for 4.9 MW does not allow for more than 4.9 MW, even in an emergency. Yukon Energy has knowingly provided false information in the GRA, expected the Board to accept and act on this false information and adjust rates accordingly, causing a loss to ratepayers. This lines up nicely with the four elements of fraud described in Hryniak, and this is just the beginning.

¹⁰ YESAB 2023-0090 Decision Document included as [Attachment A](#)

¹¹ YESAB IR1.3 from 2023-0090 Mayo assessment included as [Attachment D](#)

¹² 2023 GRA pdf p. 166

2) YESAA Section 49 and YEC's interpretation of Section 49.

YESAA Section 49 reads as follows:

Emergencies exempted

49 (1) *Notwithstanding sections 47 and 48, no assessment is required of an activity that is undertaken in response to a national emergency for which special temporary measures are being taken under the Emergencies Act, or in response to an emergency when it is in the interest of public welfare, health or safety or of protecting property or the environment that the activity be undertaken immediately.*

YEC has claimed repeatedly that using Section 49, they can operate capacity that has not been assessed or permitted in the event of an emergency,¹³ and further claimed that they can install capacity specifically for this purpose without assessment as long as it is operated only in emergency conditions.¹⁴ Both of these claims are false.

In the 2021 GRA I argued that Section 49 was only to be used *in response* to an emergency rather than in planning for an emergency.¹⁵ Emergency planning based on rules disappearing is not correct or prudent. While I still believe this to be true, another part of Section 49 has proven to be more important at the moment. The key instead is “*no assessment is required*”.

As YEC well knows, bypassing the assessment does not automatically provide a permit to operate.

The regular permitting process:

- 1) YESAB Assessment and Evaluation Report
- 2) Decision Document
- 3) Permit

Applying Section 49 to the process it becomes:

- ~~1) YESAB Assessment and Evaluation Report~~
- 2) Decision Document
- 3) Permit

The “Regulatory Reminders” comment provided by the Department of Environment in YESAB 2023-0090 confirms this, and says quite directly that Section 49 does not by itself allow YEC to operate capacity that has not been assessed, and also that the regulator (Department of Environment) cannot authorize operating this capacity under any circumstances.

Regulatory Reminders:

The regulator is unable to provide authorization to operate above the assessed capacity in the event of an emergency situation. The Environment Act and Air Emissions Regulations do not contain processes for managing emergency situations from a proponent or regulator perspective.

YEC was aware in 2021 that Section 49 did not provide a permit to operate, and failed to confirm that a permit could be granted without an assessment before the 2023 GRA.

13 2023 GRA p. 142 note 10, also Consolidated IRs pdf p.83 line 28, multiple references in 2021 GRA Transcript Sept 27, 2021, 2021 YEC Reply Argument p. 28, and many more. Interestingly, YEC also contradicts this three times also on p.83 of the Consolidated IRs, (lines 6, 14 and 36) indicating that they would need to contact the Department of Environment for authorization to operate despite their repeated claims that Section 49 gives them authorization. And of course the Regulatory Reminder says that the Department of Environment cannot give that authorization. Perhaps this is why they claim that this “has not needed confirmation with the Department of Environment”. They already have enough confirmation that they are wrong.

14 2021 GRA Transcript Sept 27, p. 86 line 14

15 The Board seems to have similar issues with the use of Section 49 in contingency planning, as expressed in Board Order 2023-25 Appendix A Follow-up question 3 pdf p. 5: “Given the above-noted finding, are the rented diesels exempt from an assessment pursuant to section 49 of the Yukon Environmental and Socio-economic Assessment Act because they fall within an activity that is required in certain emergency conditions? If yes, what are the on-going emergency conditions and what YEC has done to resolve the emergency? If no, then please explain YEC's position on this issue.”

Further, YEC Counsel Mr. Landry was also aware that relying on Section 49 was shaky at best, preventing an answer in the 2021 hearing to an important question.

Q: "The question was has YEC met N-1 requirements using only legally authorized generators? And it's kind of a yes or no question."

Mr. Landry: "...Now we're getting into legal argument, Mr. Chairman. It's pretty clear what they can and cannot do, and I think Ms. Milojevic has been clear on a number of occasions. If Mr. Yee wants to make a legal argument in his final submission, he can, but he's using the word "legal" now, what they're legally permitted. And there's obviously a very fundamental disconnect between Mr. Yee and the legal position of Yukon Energy, so..."¹⁶

As YEC and Mr. Landry were and are aware, repeating multiple times that they believed Section 49 authorized capacity that had not been assessed or permitted does not make it true. Saying "it's pretty clear" and convincing the Board in a GRA hearing of their interpretation of Section 49 also does not make it true. I will agree however, that there is a very fundamental disconnect between what is legal and the legal position of Yukon Energy.

The correct answer was and was and is "No, YEC has not met N-1 requirements using only legally authorized generators." In fact they have not met their N-1 requirements at all.

And later in cross, Mr. Landry continued "*I think Mr. Yee's point is very much a legal issue. You heard from the witnesses from YEC the position that YEC obviously clearly took categorically pleading, and we will be providing some legal context for that, as you imagine, and I don't think it would be helpful for the Board to effectively cross-examine on legal issues. So for that reason, I don't have any questions.*"¹⁷

Of course no legal context was ever provided, as none existed.

I replied "*...I believe that the legal issues should be at least discussed or relevant to this because there is the potential that these generators will not be permitted, will not pass the YESAB, and will not be able to be used by the public. And that, of course, brings up the question of prudence of expenditures, given that there is a risk taken in installing rental generators without a permit.*"¹⁸

In the both the 2021 and 2023 GRAs, YEC understood that Section 49 does not by itself allow operation of capacity. YEC and Mr. Landry knowingly made this false representation to the Board. The Board acted on this false information and customers were charged for capacity that had not been assessed or permitted and was therefore inoperable. All four elements of fraud again.

16 2021 GRA Transcript Sept 27, p. 119-120

17 YEC 2021 GRA Transcript 29-Sept, 2021 p.498

18 YEC 2021 GRA Transcript 29-Sept, 2021 p.499

3) YEC's use of Section 49 in the 2023-24 GRA and consequences to N-1.

In the 2023 GRA, YEC relies on Section 49 for as follows:

In 2023-24, 16.1 MW:

- 4.1 MW of capacity not assessed or permitted in Mayo, as described earlier.
- 12 MW of capacity not assessed or permitted in Whitehorse.

In 2024-25 21.2 MW:

- 4.1 MW of capacity not assessed or permitted in Mayo, as described earlier.
- 12 MW of capacity not assessed or permitted in Whitehorse.
- 5.1 MW in Faro.

Whitehorse: YEC's Emissions Permit previously allowed 12 MW to be used in N-1 emergencies, but only until March 31, 2022.¹⁹ YEC has not taken any action subsequent to the expiration of this part of the permit, and the 12 MW of rentals have provided no value since April 1, 2022.

Faro: *Permanent diesel dependable capacity at Faro will equal 8 MW for winter 2024/25 with the project's added 5 MW. Planned rental of 7 diesel units (12.6 MW) will enable the full 15.5 MW of Faro diesel facility authorized normal operations capacity and provide a further 5.1 MW of dependable capacity operation during an N-1 event to protect public health and safety.*²⁰

As the Department of Environment has confirmed, capacity beyond what has been assessed cannot be operated, even in an N-1 event, so this added 5.1 MW cannot be counted or operated. YEC also claims in the GRA that the Faro modifications "will not require a new YESAA assessment"²¹, however a 5.1 MW increase will require an Executive Committee screening if it is to be counted or operated.

YEC's false claims about the largest capital project in the 2023 GRA brings it's prudence into question. And if YEC is actually wants "to protect public health and safety" then they would respect the assessment and permitting process. Protecting public health and safety is why assessments and permits exist and are required.

YEC claims to have met N-1 criteria as follows:

*The dependable capacity based on the single contingency (N-1) criterion is forecast to be about 0.7 MW and 0 MW in excess of the forecast non-industrial winter peak for 2023 and 2024 respectively*²²

However, this assumes that capacity that has not been assessed or permitted can be considered available dependable capacity. The Department of Environment has confirmed that this assumption is not correct, and therefore there are shortfalls of 15.4 MW in 2023, and 21.2 MW in 2024.

By failing to make the rentals are legally operable, YEC has failed to ensure safe and reliable electricity service in Yukon. It's like renting a fleet of fire trucks or other emergency vehicles, and figuring you'd ask for the keys after the emergency occurs. Rather than planning for an emergency, YEC's failure to meet N-1 this is increasing the potential of one. Certainly not prudent.

And back to Hryniak, YEC has knowingly claimed inoperable capacity in Whitehorse, Faro and Mayo as dependable and available capacity, has presented this false information to the Board and the public, and has based part of their rate increase on this false information.

¹⁹ Current YEC Air Emissions Permit Part 9. Included as [Attachment C](#).

²⁰ 2023 GRA p. 163 indicates 7 rentals in Faro. Interestingly, on page 157, YEC also claims that this installation will displace 3 rental units, though none are actually being displaced in Faro. So without an EC screening to add the 5.1 MW, we will need 3 more rentals, up to a total of 25. Wonder where those are going to go? YEC's reply to JM-YEC-1-4 also claims diesels will be displaced, though none will be displaced.

²¹ 2023 GRA p. 163

²² 2023 GRA p. 40

4) Who knew what and when? YEC avoids learning about Section 49.

While it became more obvious that YEC had issues with the permitting of rental diesel during the Mayo YESAB, YEC has known all along that Section 49 does not provide a permit to operate, and is well aware that assessments and permits while related, are distinct and separate. This was true in the 2021 GRA process, and is still true for the 2023 GRA.

If YEC had been sure of the application of Section 49 in 2021, they would have further explained how Section 49 provided a permit, and Mr. Landry would have based his interpretation of the law on more than YEC's repetitive answers. Due diligence would require that YEC check with the Department of Environment to confirm that their interpretation of Section 49 was correct and relevant. This did not happen. In a 2023 IR response, YEC says "...this arrangement is consistent with existing regulations and has not needed confirmation with the Department of Environment."²³ In response to the same IR however, YEC does admit three times that they would have to check with the Department of Environment before running any capacity in response to an emergency.²⁴ But they would rather not check now, as the Regulatory Reminder provided earlier has already given the answer.

YEC was aware that Part 9 of their Emissions Permit expired on March 31, 2022. This would have been an appropriate time for them to have confirmed the implications of the expiration and if Section 49 would cover them. This did not happen.

It would be difficult for YEC to claim that they knew (without asking) what the Department of Environment would say about Section 49, and clearly reckless not to ask. The only reason not to ask would be knowing they would not get the answer that they wanted. Knowledge or recklessness, take your pick.

Again from Hryniak:

(2) some level of knowledge of the falsehood of the representation on the part of the defendant (whether knowledge or recklessness);

Knowing they were wrong, YEC did not confirm with the Department of Environment the necessity of permitting all capacity or the applicability of Section 49 or the implications of the Whitehorse N-1 capacity expiration. However I did want to know this, so I asked.

Asking around these and other issues, I was informed in a letter signed by Nils Clarke and dated Feb 17, 2022 that N-1 capacity needs to be assessed:

The department is updating its processes so that in the future, permits will not allow for the generation of any capacity that has not been included in the YESAA assessment. This will include the capacity associated with generators to be installed and used under emergency (N-1) conditions.²⁵

In the past, N-1 capacity could be permitted without an assessment using Section 49.1 of YESAA (not to be confused with section 49 of YESAA) Section 49.1 was used to permit the original rentals in 2017. It was added to YESAA in 2015 and was repealed on December 13, 2017 and had read as follows:

No significant change

• 49.1 (1) A new assessment of a project or existing project is not required when an authorization is renewed or amended unless, in the opinion of a decision body for the project, there is a significant change to the original project that would otherwise be subject to an assessment.

Without this, the Department of Environment has no facility to change a permit without an assessment. YEC was aware that this change had occurred in 2017.

23 Consolidated IR responses pdf p. 83 line 7, response to NY-YEC-1-18(a)

24 Consolidated IR responses pdf p. 83 lines 6, 14, 36. Response to NY-YEC-1-18(a,b,c)

25 Letter to me from Nils Clarke, Feb 17, 2022 included as [Attachment E](#)

This was confirmed in a letter I received from the Department of Environment dated May 25, 2022.

With respect to the Whitehorse Generating Station, the decision to allow for the emergency generators was made when the Yukon Environmental and Socioeconomic Assessment Act (YESAA) contained section 49.1. When in force, subsection 49.1(1) stated a new assessment of a project or existing project is not required when an authorization is renewed or amended unless there had been a significant change to the original project. Our review of the activities proposed at that time and the previous assessments are captured in the document "Record of Determination of Significant Change", of which you have a copy. Since this decision was made, YESAA was amended to remove s. 49.1(1). This process is no longer applicable to any current decisions.²⁶

This letter also confirmed that YEC's authorization for N-1 capacity in Whitehorse had expired and that YEC was aware of this:

As of May 2022, the authorization for this emergency capacity has not been included in the Whitehorse station permit. As stated above, the YESAA subsection used to authorize this capacity previously has been repealed. Thus, this authorization has been removed from the permit and YEC has been directed to seek a new assessment for this activity.²⁷

Despite knowing the authorization had expired, YEC has still not initiated an assessment to add the 12 MW of N-1 rental capacity to Whitehorse. Again, YEC has knowingly presented false information, that 12 MW of N-1 capacity was available in Whitehorse in 2022-23 and will be available in 2023-24 and 2024-25. YEC falsely claimed costs for this inoperable capacity in the 2021 and 2023 GRAs. Again matching the elements of fraud from Hyniak.

And this letter also confirmed that any increase of 50kW or more would require an assessment.²⁸

As an aside, given the noise complaints from Riverdale residents, I think an EC screening increasing capacity from 14 MW to 26 MW will be difficult, and perhaps YEC thought it easier to ignore the expiration and hope nobody noticed.

26 Letter from Department of Environment, May 25, 2022. Included as [Attachment F](#).

27 Letter from Department of Environment, May 25, 2022. Included as [Attachment F](#).

28 Letter from Department of Environment, May 25, 2022. Included as [Attachment F](#). Last highlighted bit on 2nd page.

5) YEC's Course of Conduct with rental diesel: False information and recklessness, 2017 to present.

YEC has not had a business case for the rentals, nor did they did not have much of a plan at all. It has been one improvised last minute quick fix after another. Not prudent in the context of being a public utility. In this section I will point out false information and recklessness in every expansion of rental diesel. While some of these may not directly affect the 2023 GRA, a brief exploration of this history is relevant in establishing that the current issues are not simply one time mistakes, but part of a larger ongoing problem.

a) 2017 and Section 49.1. Permitting at or after the last possible moment.

On December 15, 2017, YEC's air emissions permit was amended to allow the operation of 5 of the rentals (10 MW) only in N-1 conditions. This was allowed by the previously discussed Section 49.1 of YESAA, which was no longer part of YESAA as of the day before, December 14, 2017.

Chronology:

9-November, 2017: The House of Commons passes a bill that rescinds Section 49.1 of YESAA. This bill addressed four changes to YESAA from 2015 that violated Yukon First Nations land claims agreements. The bill to rescind was supported unanimously by the Yukon Legislative Assembly, and Section 49.1 and three other items were "illegally put into law" according to Larry Bagnell.²⁹

Despite this one month later, YEC decided to use Section 49.1 to permit the first rentals.

11-December, 2017: Days before Section 49.1 was rescinded, The Department of Environment starts to use it, issuing a "Record of Determination of Significant Change", for 4 rentals for 2017-18 and then 5 rentals and up to 10 MW of capacity for use in N-1 events until 2021, "which is when they (YEC) plan on having a more permanent solution to addressing the longer term capacity gap."³⁰

14-December, 2017: The bill rescinding Section 49.1 of YESAA receives royal assent.

15-December, 2017: Using the now rescinded Section 49.1, YEC's emissions permit is amended to allow 5 rentals to be used in N-1 events only. According to the permit, this provision expires March 31, 2020.³¹

The permit was issued after the authority to issue such a permit using Section 49.1 had been rescinded and clearly shouldn't have been issued, particularly given the unanimous lack of support for Section 49.1 from the Yukon Legislative Assembly. Serious legal and ethical issues here. Should YEC use a rescinded part of YESAA that was illegally put into law and violated Yukon First Nations land claims agreements? Does the Department of Environment allow other companies to use rescinded parts of YESAA? Special treatment for YEC?

In the first attempt at rental diesel, YEC failed to plan for or consider permitting requirements in advance, with dubious results at best. They haven't gotten better at it. Legal and ethical issues abound. Was rental diesel ever approached prudently? No it was not.

29 From Larry Bagnell, "In 10 words or less, today is all about Bill C-17 removing four clauses illegally put into law. We are all legislators here, and we should be the first to unanimously agree to pass the bill for that reason. That is why, as the minister said, the Yukon legislature was unanimous in passing the bill, including the Yukon Party, which is the Conservatives." Also referring to 49.1 one of the four clauses illegally put into law, "Imagine, as in the case I just talked about, after negotiating for 30 years, all of a sudden one or two of the partners added four significant clauses without negotiation. This is what happened. The four clauses are probably illegal, if not technically, then in the spirit of the law or the honour of the crown. Anything done illegally, regardless of the content, whether good or bad, had to be undone and cancelled. That is basically the end of the story today." More that he said about the bill here: <https://openparliament.ca/debates/2017/10/26/larry-bagnell-1/>

30 Record of Determination of Significant Change, dated December 11, 2017 and included as [Attachment G](#). Relevant portions highlighted.

31 YEC Air Emissions Permit, dated 15-December, 2017. See [Part 9](#) of the permit, included as [Attachment H](#).

b) 2018 Permit Amendment. No known way to make this change. How did this happen?

On October 4, 2018, YEC's Air Emissions Permit was amended again, this time to allow up to 6 temporary rental diesels and a maximum of 12 MW in N-1 emergency conditions until March 31, 2022. This is the current permit.³²

However, the Department of Environment has subsequently confirmed that they were unable to make changes such as this after Section 49.1 was rescinded in December of 2017. Did they make a special exception for YEC?

In the 2021 GRA in NY-YEC-1-8(a) I asked YEC to provide "Any and all applications and correspondence with regulator(s) regarding rental diesels."

There were no documents provided explaining this change. How did YEC and the Department of Environment do it? If it was legitimate, why has YEC not used the same strategy again or with the other rental diesels? It will be interesting to see if YEC has a reasonable explanation or any documentation that they failed to provide in the 2021 GRA process.

c) 2020 Project Splitting and false information in Faro to avoid YESAA requirements.

In December of 2020, YEC installed and operated 7 rental diesels, or 6 plus one spare. The project was split into two projects to get past YESAA without an Executive Committee screening.

One part was "permitted" by ignoring the most recent 2014 YESAB assessment which YEC claims was for 8.15 MW and using the 10.6 MW limit claimed of the superseded 2008 and 2011 assessments. Emissions standards had changed in the meantime, but this was also ignored. The 2011 Evaluation Report stated a scope of 3 years, but somehow YEC claimed that the resulting Decision Document was valid in 2020 – and in fact more valid than the 2014 report that claimed a scope of 10 years. We all remember 2020. Was it just like 2011 as YEC claimed? Hmm... And the Department of Environment accepted this?

The other part was "permitted" by YESAB 2021-0115, an assessment for 4.9 MW that occurred after the project was operating despite YESAA stating that the assessment is to be completed before the project is undertaken.

The end result was that this project increased capacity by 7.35 MW without going through the EC screening triggered by an increase of 5 MW or more.

Was this really two separate projects? It was built as one project, and presented to the Board as one project. Does YEC consider project splitting to be a valid way to avoid assessments and regulations? Should a Crown corporation use schemes like this to avoid environmental assessments?

It was also presented to the public in Faro as one project, albeit a smaller one - pretending that half of this new project already existed.

When YEC presented the project to the town and did sound and pollution studies, they referred to the 10.6 MW limit as the "existing" and "permitted" capacity. That is, they claimed that FD1 and FD7 (both derated) and three of the new rentals were "existing" and "permitted".

"Existing" (since 2011 according to YEC using the 2011 Decision Document):

FD1 (2.4 MW) + FD7 (2.8 MW) + 3 of the 6 new rentals installed in 2020 (1.8*3) = 10.6 MW³³

³² Current YEC Air Emissions Permit Part 9. Included as [Attachment C](#)

³³ It took awhile to figure this out since YEC did not mention it in any public documents, but was clear in YESAB 2021-0115. The Project proposal p. 66 shows FD1 + FD7 + YM20 + YM21 + YM22 as the "existing" configuration with the YM units being the rentals.

“Proposed/New” for YESAB 2021-0115:

“Existing” configuration + 3 (of 6) new rentals installed in 2020 (1.8*3) = 16 MW, but only 15.5 MW permitted.

This was of course false. This “existing” configuration had never actually existed. From 2014 to 2020, only FD1 and FD7 were permitted. In 2020, the rentals were all installed and connected at the same time.

YEC never told Faro that it was considering 3 of the rentals to be “existing capacity” and already assessed in 2011, because this would of course be called out as ridiculous. One would reasonably expect the more recent 2014 assessment to be the standard applicable, along with what had actually existed.

Here’s an example from YEC’s presentation on December 2, 2020. This was the first informational meeting with the public, and just after the generators had been installed.

Existing Site	With Rentals
58 dB	<1 dB change

34

Note: nearest point of reception is barracks bldg. on Ketzka Ave.

There was no way that members of the public would know YEC considered 3 of the new rentals to be existing. This configuration (FD1 + FD7 + 3 rentals) never actually existed. Did the “Existing Site” before the rentals were installed in 2020 actually have three rentals? One would naturally assume that “with rentals” would refer to all of the rentals installed in 2020, not just half of them. And the most recent 2014 YESAB (8.15 MW) was never mentioned since YEC preferred the 10.6 MW total from 2008 and 2011. Can one pick and choose what year’s assessment and environmental regulations one prefers to use?

Should a public company call something “existing” that has never existed? Yukon Energy provided false information to Faro in calling this configuration “existing”. Members of the public would of course think that “existing” meant what had actually existed and was permitted from 2014 until 2020. Aside from avoiding an Executive Committee screening, splitting the project made it an easier sell to the public, as the sound and pollution reports reflected the difference of adding 3 rental generators, rather than adding 6 +1 spare as actually happened. And of course the sound data above was entirely inaccurate and YEC uses different numbers now for the same installation.

Applying Hyrniak, calling half of the new project “existing” is another example of false representation from YEC, information that YEC knew was false. This was intended to influence a decision. The results were overcharging ratepayers and a loss of quality of life in Faro. A loss of health and wellness. As the flawed YESAB assessment noted:

- Reduced quality of life for Faro residents: sound generated by project activities may interact with other users of the land in such a way to impact their quality of life.
- The Designated Office considers the Project to have a high likelihood to affect Faro residents’ quality of life and public health as a result of noise disturbance.
- Reduced health: public health may be affected by project operations and long-term activity at the site.
- Due to the potential effects resulting from both short and long-term exposure to NO₂, the Designated Office views any exceedance of NO₂ to represent a high magnitude effect to air quality and the health of exposed Faro residents. As uncovered in the Air Dispersion Modelling Assessment by WSP, maximum

34 From December 2, 2020 public meeting with Faro. Full presentation available on pdf p. 491-518 of YEC consolidated IR Responses, Mar. 5, 2021 from the 2021 GRA.

predicted NO2 concentrations significantly exceed the YAAQS for both existing and future scenarios in the short-term averaging period (1-hour). ...215% of the current YAAQS.³⁵

All quotes from YESAB 2021-0115. And this was from an assessment that only addressed the final 3 of the 6 added rental generators.

I have asked the Department Environment and YESAB about project splitting and use of superseded documents in the Faro permitting process, neither will make any attempt to justify what happened, each points at the other as the party to question. When asked to explain or defend YEC's process, they decline, repeating only that 10.6 MW was "existing" and failing to justify how it exists or address the issue of project splitting. They realize their mistakes, as YEC has in submitting this GRA, but apparently easier to double down on the errors than to correct them. Special treatment again?

My questions to YESAB are included as [Attachment I](#). I initially submitted 3 questions on March 6, 2023, and added a 4th on March 10, 2023.

YESAB's Lauren Haney replied on May 17, but did not actually answer any of the questions, particularly comments about "A single project can be treated as two smaller projects to avoid an Executive Committee screening." and "At the request of the proponent, the most recent YESAB assessment can be ignored." I sent a followup to point this out two weeks later, but it was returned as she had moved from YESAB to Energy Mines and Resources. I did not expect to get my questions about YEC project splitting answered there. The non-answer from YESAB is included as [Attachment J](#).

The Department of Environment did state that they did not support using superseded documents to avoid compliance with current environmental standards, and when I asked how this applied to increasing the capacity at Faro to 10.6 MW using a 2011 Decision Document, they did not answer. My questions are included as [Attachment K](#). Their non-answer is included as [Attachment L](#). The Department of Environment has said that any capacity increase over 50kW needs an assessment, and this is consistent with YESAA. I understand the difficulty of admitting that mistakes have been made, and that until now it has seemed easier to follow YEC down the path of false representation.

Does the Board endorse YEC's habit of providing different information to different regulators? How about providing false information to the Board and other regulators? Does the Board appreciate a good story from YEC, even if fictional?

d) 2020 YEC's false information about capacity to the Department of Environment & capacity definitions.

Also related to Faro and Whitehorse diesel permitting failures, is YEC's use of different terms expressing capacity, and conveniently exchanging and misusing these terms to their advantage. YEC has used this strategy to provide false information to the public (covered later), and to the Department of Environment.

Nameplate Capacity is pretty simple. This is the dependable capacity rating of the generator when new. This doesn't change throughout the life of the generator.³⁶

Derated Capacity is lower than nameplate capacity and adjusted for the age and condition of the generator. It is the dependable capacity rating of aging equipment. As an example, FD1 had a Nameplate Capacity of 5.15 MW, but by 2020 had been derated to 2.4 MW.

Dependable Capacity is what YEC can get out of the generator now. For new equipment, this can be Nameplate Capacity. If the generator has been derated, the Derated Capacity is the dependable capacity.

³⁵ This and other points above all taken from YESAB 2021-0115.

³⁶ At least that is how it is supposed to be if one follows the rules. YEC doesn't. For more, see the Phantom Upgradings section below.

It is used in capacity planning calculations and N-1. In the past, YEC has also called this MCR Rating and also sometimes calls it “current rated capacity.” Taking WD5 as an example, the nameplate capacity is 2.5 MW, and the MCR Rating in the 2011 YESAB was 2.25 MW, with dependable capacity being the same 2.25 MW in 2020’s 10 year renewable plan.

Operating Capacity and Production Capacity are terms that YEC uses mostly in YESAB assessments. This is usually the assessed and permitted capacity. This cannot exceed total Nameplate Capacity or Dependable Capacity. YEC can choose Operating Capacity to be lower than Nameplate or Dependable Capacity, as they did in Mayo, with a permit for 4.9 MW of Operating Capacity, despite a Nameplate Capacity of 9 MW.

From an IR1.2 in YESAB 2023-0090³⁷:

- a) Please define the term “operating capacity” as it is used in reference to the Project and how it differs from the “nameplate capacity” of a generator.

YEC Response:

For Yukon Energy, *Operating Capacity* refers to the maximum generating threshold, in megawatts (MW), as defined under a thermal generating station’s Air Emissions Permit.

For Yukon Energy, *Capacity* may refer to either the nameplate capacity of a specific generator or the current rated capacity of the unit (whichever is less). The term may also be used to describe the overall installed or available generating capacity of the station, which would be the sum of nameplate or rated capacity of the individual units installed at the facility.

YEC claims that the 2008 and 2011 assessments for Faro were for an Operating Capacity of 10.6 MW, but they were not. The Nameplate Capacity was 10.6 MW in 2008 and 2011, however the generators were derated to a total of 9.425 MW in the 2008³⁸ and 2011³⁹ assessments. 9.425 MW was the assessed and permitted Operating Capacity in 2008 and 2011. As YEC says in their response above, “nameplate capacity of a specific generator or the current rated capacity of the unit (whichever is less).” The site capacity being the sum of these capacities.

With Operating / Production / Site / assessed / permitted capacity in 2011 being 9.425 MW and not 10.6 MW, YESAB 2021-0115 to increase the output to 15.5 MW does not work, as it was incorrectly based on a capacity of 10.6 MW.⁴⁰ An Executive Committee screening would have been necessary.

YEC occasionally claims that assessments are based on Nameplate Capacity, though this conflicts with how they defined capacity in the Mayo YESAB above. Applying Nameplate Capacity to the 2011 YESAB does give 10.6 MW, but applying the same standard to YESAB 2021-0115, that is ignoring the deratings of FD1 and FD7, the 15.5 MW site capacity would already be 8.15 MW, and only allow 4 rentals, and not the six that are installed. This scenario would also require an EC screening. The Faro permit is only valid if YEC is able define capacities differently for the two different parts of the split project. YEC was aware of this logic problem, and solved it by giving false information to the Department of Environment.

In 2020 in the process of asking the Department of Environment for the project to be split using superseded documents (as though these were not issues in themselves), YEC exaggerated the Nameplate

37 Yukon Energy’s response to IR1.2 in YESAB 2023-0090 included as [Attachment D](#).

38 2008 Generation Inventory from YESAB 2008-0230 Air Emissions Permit Renewal Supporting Document p. 15, pdf p.20, included as [Attachment M](#).

39 Stacking order and Capacities 2011 from YESAB 2011-0241 Evaluation Report p.9 (pdf p.12) included as [Attachment N](#).

40 In some attached documents and earlier in this document I had accepted and referenced the incorrect 10.6 MW capacity, and also referred to an 8.15 MW capacity from the 2014 assessment. These have both been shown to be incorrect in this section due to previous deratings, but I only noticed this late in the process of this GRA when confirming Whitehorse capacity. This does not affect the validity of any of my evidence or arguments and I have not updated the other documents. Project splitting is still project splitting and there is still no good reason to use superseded documents that allow bypassing of environmental regulation. In evidence about those issues I have left the capacities untouched in an attempt to avoid confusion. I can’t change the letters and documents from the past, and again, the arguments hold either way.

Capacity of FD7, from 3.0 MW to 3.2 MW and did not indicate that FD3, FD5 and FD7 had all been derated previous to the 2008 and 2011 assessments as shown above, instead saying that deratings had happened “over the last few years” in the same email.⁴¹

And while FD1 had not been derated in the documents that I referenced above, YEC confirmed that it had been derated in 2008 and 2011 in IR response NY-YEC-2-1 in the 2021 GRA:

*The Faro Diesel #1 unit with a nameplate installed capacity of 5.15 MW was recommissioned with 5 MW capacity in 2008, later was rated at 4.0 MW in the 2011 and 2016 YEC Resource Plans with expected retirement in 2021.*⁴²

So I am being generous in saying that the capacity was 9.425 MW in 2008 and 2011. Using YEC data from the 2021 GRA, it was actually 8.275 MW at the time of the 2011 assessment. By falsely indicating to the Department of Environment that the generators had been derated more recently, YEC fooled the Department of Environment into allowing the incorrect capacity of 10.6 MW. And having chosen to base their 2021 YESAB on this, YESAB 2021-0115 is also invalid.

Back to Hyrniak:

In 2020, YEC knowingly provided false information to the Department of Environment, which caused them to approve an incorrect Operating Capacity. This ill-gotten number was then used in the 2021 assessment.

The loss? Quality of life, consequences to health and wellness in Faro as described earlier, and in terms of dollars, the cost of infrastructure and rental diesels that were not and are not properly assessed and permitted to be operated.

A permit is not valid if based on false information from the applicant. And there are penalties for the applicant for providing false information, as described in the Environment Act, section 173.

This leaves us with the 2014 assessment and permit which is still valid. When deratings previous to 2014 are considered, the Faro facility has a total operating capacity of 6.4 MW.⁴³

Anything above 6.4 MW is not properly permitted and not operable and should not be part of the rate base.

Given later the later derating of FD1 to 2.4 MW and uprating of FD7 to 2.8 MW, 1.2 MW can be added under the last valid permit. A bit less than one rental. And yet seven are installed.

e) 2021 YEC’s GRA and Section 49 – False information, conflicting statements and risks.

In the 2021 GRA, YEC cited Section 49 of YESAA claiming that in emergency conditions, this gave them the ability to run capacity that had not been assessed or permitted. This was not true, as I have confirmed earlier in this document with the Regulatory Reminder⁴⁴ from the Department of Environment. YEC also knew that a pass on an assessment was not an authorization to operate capacity, as shown earlier.

And yet YEC repeatedly cited Section 49 in response to my questions. Oddly though, when questioned by Board Chair Richard Buchan about the two “spare” generators, they backed off from earlier claims.

41 In the first email on the page, YEC tells the Department of Environment that deratings happened “in the last few years” though it had actually happened previous to 2008. Email included as [Attachment O](#). In the three emails following, YEC asks to split the project and use 2008 and 2011 Decision Documents instead of the actual standard applicable, the 2014 Decision Document.

42 YEC 2021 Round 2 IRs August 24, 2021 p. 26 line 9.

43 4.0 MW (FD1) + 2.4 MW (FD7) . FD1 capacity is from YEC’s response to NY-YEC-2-1 in the 2021 GRA, and FD7 capacity from generation inventories in 2008 and 2011 [Attachment M](#) and [Attachment N](#).

44 “The regulator is unable to provide authorization to operate above the assessed capacity in the event of an emergency situation.” Regulatory Reminder from the Department of Environment included as [Attachment B](#).

Q: Okay. And then in the event, you know, of an N-1 event, you still -- you can throw the other two online as well under Section 49 of the legislation?

A: MS. MILOJEVIC: Not quite, Mr. Chair. The two spare units can't be used in addition to the 15. They're there in case any of the 15 or if two of the 15 units wouldn't start during N-1. The spares are there to start in their place.⁴⁵

As always, when it comes to permitting for the rentals, YEC relies on last minute improvisation and conflicting information. No further explanation was given as to why Section 49 applied to all generators except the spares.

And where are the spares now in 2023? In the 2021 GRA, YEC insisted that one spare was needed in Whitehorse and one in Faro. In the YESAB assessment for Mayo rental diesel, YEC indicated two spares in Mayo. In the 2023 GRA, YEC implied the same as 2021, one spare in Whitehorse and one in Faro.⁴⁶ In IR responses, YEC said one spare in Whitehorse, one in Mayo and none in Faro. Which YEC story do you believe? Why is a spare no longer needed in Faro while one (or two) are needed in Mayo? YEC defines generators as "spare" depending on what is most advantageous in the moment. Let's call the spares what they are, inoperable capacity. Currently the spares are redundant backups to backups⁴⁷ that are themselves not permitted and not operable.

And back to 2021, YEC's CFO was a bit flippant when asked about the issue of the risk of installing generators that did not have assessments or permits and potentially could not be operated:

MR. MOLLARD: *Well, again, to reiterate the point that Ms. Milojevic put on the record this morning, we do have authority to run those under an emergency situation, Section 49. But other than that, if I was told I had to remove those units, I'd send them back to the supplier and I wouldn't pay for them. So I would say the financial risk is relatively low in that respect.*⁴⁸

No, Section 49 does not give authority to run generators in an emergency situation. And of course sending back the rentals brings on all kinds of other issues, since YEC does not have excess capacity.

Statements like these and YEC's reckless, unethical and dishonest approach to permits for the rentals is certainly not prudent.

f) 2022 Expiration of Part 9 of YEC's permit for Whitehorse and N-1.

This topic has been covered previously, but is mentioned here as it is part of the chronology of YEC's permitting misadventures. With Part 9 expired since March 31, 2022. YEC had an N-1 shortfall of 10.75 MW in 2022-23⁴⁹ and will have shortfalls in of 15.4 MW⁵⁰ in 2023-24 and 21.2 MW⁵¹ in 2024-25. This while charging ratepayers for capacity that has not been assessed or permitted and cannot be operated.

g) 2023 The Mayo YESAB assessment and the GRA.

Also covered earlier in this document. YEC claimed to YESAB that 2 of the 5 generators were backups or spares, and YESAB took them at their word and a Decision Document allowing a maximum output of 4.9 MW in normal and N-1 emergency situations resulted.

45 2021 GRA Transcript, September 29, 2021, p. 395

46 With 5 rentals providing 9MW as previously discussed and indicated on pdf p. 166 of the GRA.

47 "The Board finds that the two spare units are therefore redundant, given that they essentially provide backup to the diesel rental units which themselves are backup to YEC's system." 2021 GRA result, Board Order 2022-03 Appendix A pdf p. 27 para 114.

48 2021 GRA Transcript, September 27, 2021, p. 107

49 Using the 1.25 MW N-1 surplus from the 2021 GRA p.40 line 5, and removing 12 MW that was no longer permitted as of March 31, 2022.

50 16.1 MW not permitted, subtracted from YEC's claimed surplus of .7MW for 2023-24 – More detail in Section 3) above.

51 21.2 MW not permitted, subtracted from YEC's claimed surplus of 0 MW for 2024-25 – More detail in Section 3) above.

In response to questioning from The First Nation of Na-Cho Nyak Dun, The Yukon Conservation Society and the YESAB Designated Office, YEC assured all that the 4.9 MW limit would not be exceeded. The Department of Environment confirmed that even in emergency conditions, the 4.9 MW permitted capacity could not be exceeded, and this was reflected in the Decision Document.

As YEC stated during the YESAB process, "*Yukon Energy fully expects that the requested maximum operating capacity of 4.9 MW will be prescribed and enforceable under the Air Emissions Permit that is issued for the project.*"⁵²

Three days after this, YEC submitted their GRA, indicating a 9 MW capacity from Mayo rental diesel, knowingly providing false information about Mayo permitted capacity and also about the application of Section 49 of YESAA.

52 YESAB 2023-0090, YEC Response to Public Comments Project Assessment August 28, 2023 p.3

6) YEC's Course of Conduct Part 2: More false and deceptive information from YEC.

Aside from knowingly presenting false information to the Board, YEC has also provided false and deceptive information to the public. This has occurred consistently where falsehoods or deceptions provide benefit to the company. While I could provide more examples, three should be sufficient to show YEC's blatant disregard for truth and honesty in dealings with the public. I am also including one one more concerning the Department of Environment. All to show the depth of the problems at YEC, and that the Board is not alone in being fed false information by YEC.

a) False and deceptive information to the public at the Whitehorse thermal permitting meeting.

Another example of YEC deception comes from the Whitehorse thermal permitting presentation on March 27, 2023 where YEC misstated the limits of their existing permit. A slide from the presentation:



Here YEC claims that their current permit allows 16 MW of diesel. However, in 2021 GRA proceeding, YEC was very insistent that it was 14 MW. This was repeated in IR responses, in the oral hearing and in an undertaking.⁵⁴ This number was reached by rounding up from the actual permitted capacity in of 13.75 MW.⁵⁵ Do we believe what YEC insisted on in the 2021 GRA? According to YEC now, we should not always believe what YEC says in these proceedings.

And about that 12 MW that can be used during emergencies? That's a bit deceptive. Sure it's a provision on the existing permit, but it is also expired. The Department of Environment does not include this in the permit, and the authorization has been removed. The authorization for 12 MW in emergencies does not currently exist and should not be presented as part of the existing permit. This was covered earlier in this document.

On the next slide YEC says:

- Not asking to add more thermal capacity

Does this mean that YEC is planning on moving the rentals out of Whitehorse? With only 13.75 MW of diesel on the existing permit, there is no scenario in which they can stay in place without YEC asking to add more thermal capacity.

YEC has falsely represented their permit to the public, as well as falsely claiming that they are not adding more capacity. They know this is false, and intend that the public acts on this false representation. The loss is clean air and quiet in Whitehorse, and in Riverdale in particular. The four elements of fraud are covered once again.

53 Two pages of the presentation slides included as [Attachment P](#). The full presentation is available from YEC with the link below, pdf p.69-70. Search on "not asking" and find many instances of YEC claiming they are not asking to add more thermal capacity. This is false. https://yukonenergy.ca/media/site_documents/Whitehorse_Thermal_Permitting_What_We_Heard_Report.pdf

54 2021 GRA Undertakings 29, p. 251 of the undertakings document, also many times in the hearing transcript 27-Sept, 2021, p. 109, 110, 113, 114, 115, 116, YEC's 2021 Rebuttal Evidence p. 7 note 12, and in YEC's 2021 Final Argument pdf p.28 footnote 51 and in IR response NY-YEC-1-6 – REVISED. And now they are saying this was wrong and they meant 16? Who to believe, YEC or YEC?

55 YESAB 2011-0241 Recommendation / Evaluation Report p.9, pdf p. 12, included as [Attachment N](#). 13.75 MW total, WD3=4.2MW, WD4-6=2.25MW each and WD7 2.8MW. YEC has pointed out in response to an IR that nameplate capacities were mentioned earlier in the YESAB process, but it is of course the derated capacities that are in the Recommendation / Evaluation Report. The Decision Document does vary the Recommendation, but does not allow for capacity beyond what is in the Evaluation Report. It does add that "Upon permit renewal, the proponent shall develop and implement a plan to reduce the level of diesel energy production at the Whitehorse Rapids facility when hydroelectric generation is insufficient to meet energy demands;" The permit is up for renewal now. So what's the plan?

b) False information in response to questions concerning the Faro diesels.

On January 24, 2023, YEC came to Faro to present the upcoming “diesel replacement” modifications to the Faro facility to mayor and council and members of the public. A member of council asked why sound modelling was done at 0c, much warmer than when the diesels are actually run. An answer was not provided at the time.

I followed up in an email and asked this question and a number of others.

Q: Why was modelling done at 0c and 70% humidity? Again, these are not the conditions under which the generators are typically run.

YEC's answer was: *This modelling was based on the ISO (International Organization for Standardization) 9613-2 international standard.*⁵⁶

As a reason for modelling at 0c, this answer is false. The ISO standard provides an atmospheric attenuation coefficient that allows modelling down to -20c.

I am not sure why YEC would provide this verifiably false answer, though I suspect it was meant to be inscrutable and perhaps meant to intimidate me. The ISO standard is a basically a complicated mathematical formula that costs around \$140 to download.

Common sense prevailed however. It would be ridiculous for an international standard to require sound propagation modelling to be done at 0c. The utility of such a standard would be negligible, given that many places in the world never get as cold as 0c.

Knowing that that the answer was false, I was able to find information on the atmospheric attenuation coefficient and also a meteorological correction factor without having to purchase the ISO standard.

I pointed this out this incorrect answer to YEC and asked again, but in the replies I have gotten, YEC has only said that they are still working on a response. It is now almost a year later.

Why did YEC provide false information? Is this behavior acceptable from any company, much less a public company?

Along with this initial question from the meeting, I asked a number of other questions and for the most part received false or deceptive information. At the meeting YEC showed results supposedly from a sound modelling report. When I asked for the full report, YEC replied that the full report was not yet available. I have asked a few times, and many months later, it is still not available.

I am including my initial questions to YEC, YEC's responses, and my as yet unanswered followup questions. I apologize in advance for the sloppy formatting of the document, but I believe it is important to have integrity and to provide the unaltered exchange that I have been referencing.

Each of my questions is bolded. YEC's answer to that question follows in standard text. Where I had followup questions, these appear next in red. The exchange is provided as [Attachment Q](#).

c) A Whitehorse noise report that indicates that it's quieter when the generators are running.

In response to noise complaints from Riverdale residents in 2020, YEC presented a noise monitoring assessment. While noting that noise levels did exceed BC and Health Canada standards in some cases,

⁵⁶ My questions and YEC's answers included as [Attachment Q](#). This is Question 4).

the report also claimed that on Bell Crescent, it was quieter with the generators running than the report's chosen baseline.

Table 4 Comparisons to Health Canada Noise Guidance Criteria

Noise Location	Operation and Baseline Noise Levels		HC Noise Guidance Criteria	
	Operation Ldn	HC Baseline Ldn ¹	Δ%HA	HC Δ%HA
NM1 - Substation	66.5	60.0 (56.7)	8.8 (11.4)²	6.5
NM2 - Bell Crescent	51.5	60.0	-1.5	6.5
NM3 - Fenceline	75.6	(75.0)	1.9	6.5

57

Note 1: General HC guidance and baseline measurement in brackets

2: Potential exceedance in bold

Again with a quick nod to common sense, YEC's chosen baseline is incorrect. Unless of course YEC expects us to believe that diesel generators make for a quieter world? Otherwise, it's just more false or deceptive information from YEC.

YEC's sound studies and baselines are often suspect. The sound study for YESAB 2021-0115 for Faro rental diesel claimed that BC guidelines gave a permissible sound level of 58dB⁵⁸.

In 2023, however YEC stated the BC guidelines gave a nighttime permissible sound level of 43 dBA and a daytime permissible sound level of 53 dB.⁵⁹

YEC also claimed that the same installation had somehow gotten quieter, without any modification, from 59dB in 2021⁶⁰ to 53.6dB in 2023⁶¹ – tracking conveniently along with the change in baseline. Is either story from YEC actually true?

d) More false information to the Department of Environment, the 2023 edition.

YEC has also provided false information to the Department of Environment in 2023 concerning the Faro facility and the current diesel replacement project, claiming that FD1 which is being decommissioned represents 5.15 MW of the capacity of the FGS in an email dated February 14, 2023.⁶² 1 FD1 was derated to 2.4 MW for the most recent assessment, and YEC confirmed this was the capacity in the 2021 GRA (NY-YEC-2-1) and also claimed FD1 at 2.4 MW for regulatory purposes in YESAB 2021-0115, as shown in the project splitting section above. YEC also claims to the Department of Environment that 2 of the rentals will be removed, though all 7 are kept for 2024-25 according to the GRA.

YEC is providing false information to the Department of Environment once again to avoid an assessment. In 2021 YEC falsely claimed that FD1 had been derated "in the last few years" in order to add the rentals, and is now claiming that it was never derated and represents 5.15 MW of the capacity of the FGS. As often, YEC changes the story to support their most immediate needs.

57 Whitehorse Diesel Noise Monitoring Assessment, May 2020: https://yukonenergy.ca/media/site_documents/Whitehorse_Rapids_Gen_Station_Noise_Monitor_Assessment.pdf

58 YESAB 2021-0115 Project Proposal Supporting Document pdf p. 134

59 These numbers were in a presentation about 2023 modifications to the FGS, and also appear in a noise survey report for Faro that was included in a response to an IR in the Mayo rentals YESAB 2023-0090. See YEC YESAB IR2 Response. Oddly this report dated October 5, 2022 addresses the Faro facility as having a limit of 10.6 MW and does not address the 15.5 MW capacity. As permissible sound levels are exceeded at some locations at 10.6 MW, it is evident that more would be exceeded had the report addressed the full capacity.

60 YESAB 2021-0115 Project Proposal Supporting Document pdf p. 134 Location R4, 59dB

61 Noise information from YEC provided by YEC as [Appendix A](#), looking at location R3 53.6dB. Last page of [Attachment Q](#)

62 YEC Consolidated IR Responses p. 61. YEC also claims that two rentals will be removed, though claiming 3 on page 157 of the GRA and claiming that all 7 rentals will remain on p. 163 of the GRA. Lots of contradictory information.

7) Ethical issues: A couple of letters I sent, pointing out the ethical failings of YEC.

There have been quite a number of ethical failings at YEC, mostly involving false information. On June 19, 2023 I decided to point out some of these issues in a letter to a number of people at YEC, YG and YESAB and perhaps guilt them into doing what's right. I used some of the examples that have been described in this document, including the Mayo YESAB, YEC's Whitehorse thermal permitting public meeting, and YEC's ISO answer to my question about sound modelling in Faro.

I then wrote somewhat personalized appeals to each major recipient and included all in the letter.

It's was perhaps a strange route to take, but with no results on pointing out the issues, it was time for a different approach.

The letter had personal appeals to:

The Hon. John Streicker

The Hon. Nils Clarke

Lisa Wiklund for YEC

Stephanie Cunha for YEC (direct appeal in email, not in the attached document)

Lauren Haney, YESAB – now Energy, Mines and Resources,

Lesley Cabott for YEC Board of Directors

The cc list was extensive, and included others from YESAB, the Department of Environment, Ranj Pillai, Brendan Hanley, and folks from Mayo and NNDFN.

The letter is included here to show that everyone involved had advance knowledge of these issues and YEC's false information problem. Noting the issue, YEC should have either resubmitted their Mayo rental diesel YESAB assessment to reflect the 9 MW capacity that they intended to use, or realized that they might not be able to claim 9 MW capacity in the GRA. They were aware, as I was, that they did not intend to limit output at Mayo to 4.9 MW and keep 2 of the 5 generators as spares/backups as claimed in the YESAB process. The letter is included as [Attachment R](#).

This is relevant to this GRA because it was yet another point where YEC should have realized that they were taking the wrong approach with assessment and permitting of the rentals.

When the letter was written, I had expected YEC to claim 9 MW from the Mayo installation, and believed that the Mayo assessment should reflect this number. I believed that YEC was attempting to deceive Mayo residents by claiming capacity to be 4.9 MW. There was no good reason for YEC to install 5 generators and say that 2 of them would be spares/backups and that only 3 would operate. If YEC would have simply been honest and submitted an application for the 9 MW that they were actually planning on using, they would not have had to provide false information to the Board.

An additional letter I wrote pointing out YEC's false and deceptive information and ethical failures was published in the Yukon News. It focuses on Mayo YESAB as the primary example. It was published on August 23, 2023. Again, before YEC submitted the 2023 GRA. It is included as [Attachment S](#).

In the letter to all parties and the letter in the Yukon News I had pointed out that the assessment should be for 9 MW. YEC proceeded with the 4.9 MW assessment, knowingly taking the wrong approach.

8) Phantom Upratings – Diesel Healing Spells and other YEC magic in the 2023 GRA.

If you had already installed as much rental diesel as you could find – and significantly more than you had bothered getting assessed and permitted, but still needed more generation capacity, what would you do?

When YEC was faced with this issue, they did what any company with a proven habit of false representation would do, they made up a story. If they simply waved a magic wand (perhaps a pen) and quietly uprated all of their installed diesel capacity enough to meet N-1 criteria, the capacity problem would be solved, on paper at least.⁶³ YEC gets paid, and all works fine, unless of course there is an actual emergency, in which case YEC is required to run the installed generators beyond their actual dependable and safe capacities. YEC is gambling with our safety and energy security.

Normally uprating a diesel generator requires some actual work. Typically overhauls and inspections which are costly and would appear in the GRA. This did not happen. Instead YEC was quiet about it, and did not mention that they had magically uprated every installed diesel in the fleet with no notable work or cost. Nothing about this was mentioned in the GRA.

In the IR process, I asked for an updated generation inventory, to be able to confirm N-1 calculations. I was surprised to note that YEC had uprated every diesel generator – often to the original nameplate capacity and in two cases beyond nameplate capacity. If this were real, it would be quite an accomplishment.⁶⁴

In my motion for further response to my IRs, I asked for “confirmation and documentation supporting that every YEC diesel has been uprated since 2021.”

YEC’s response: *The dependable capacities for the diesel units provided in the response are the latest information based on review by Operations.*⁶⁵

That’s pretty weak in terms of documentation.

Board Order 2023-25 agreed that this was not a sufficient explanation as follows:

In a GRA the Board considers the prudence of expenditures and system reliability. YEC’s response to this IR brings into question the reliability of the diesel units under a sustained N-1 condition as no evidence has been provided regarding the changed capacity of all diesel generator units. As a result, the Board directs YEC to provide either documentation or reasons that justify the changing of the dependable capacities for the diesel generator units.

YEC’s response: *The increased 2023/24 GRA dependable capacities for existing units resulted from test runs that Operations staff performed on YEC diesel units in 2022 to determine whether the units had limitations. During the test runs issues were found with some of the units and modifications were made as required [under O&M expenses] to bring the units back up closer to nameplate capacity. The change in DD1 dependable capacity in particular reflects the repairs completed due to a failed generator. YEC performs test runs and updates dependable capacity on an ongoing basis. YEC is currently finding instances where some of the units have had to be derated again after putting the units through extended runs [for example, DD4].*⁶⁶

And with that, YEC did not provide documentation on the changed capacities for each generator as requested, mostly just expanding their claim that a review had found minor modifications that could be made to bring the units back to nameplate capacity. Also that DD1 was a “failed generator” that is now magically capable of more than it’s original nameplate capacity. Quite a fantastic tale.

63 NY-YEC-1-2 REVISED p.2 Interesting to note that all capacity has been uprated to nameplate capacity – except the last in the list in each location. Curious as to why others were uprated to nameplate capacity and these uprated, but less. Unfortunately YEC has no documentation about any of the upratings.

64 NY-YEC-1-2 Attachment 1, YEC IR responses pdf p. 21

65 YEC Response to Notice of Motion - Attachment 1. pdf p.2 (reply to NY-YEC-1-2)

66 NY-YEC-1-2 REVISED (YUB 2023-25 - NY Revised IRs.pdf) pdf p. 2-3

If this was so simple and inexpensive, why did YEC not do it before? Many of these generators have been derated since at least 2008⁶⁷. And why were the upratings not mentioned in the GRA? What has changed about how the units are evaluated – other than perhaps the pressure of YEC needing this capacity to meet (on paper at least) N-1 criteria?

Amazing that YEC could get DD2 and DD5 uprated to “good as new” nameplate capacity with no notable cost. These units are scheduled to be retired in 2024, despite apparently running better than they have in many years. DD2 and DD5 were both derated in 2008 and again in 2020, but it seems that YEC has learned some amazing new diesel healing spells and they are now performing as well as when they were new. Pity that YEC had not been able to find this free dependable capacity earlier.

Amazing also that YEC could get DD1 and DD3 running even beyond nameplate capacity. Records that I have checked back to 2003 indicate that DD3 has always had a nameplate capacity of 1000kW. This is consistent through all YEC documentation available for all years, except in response to my motion for clarification in this GRA⁶⁸. YEC now claims that all previous generation inventories from the last 20 years were wrong, and the the actual nameplate capacity is 1030kW. They made this “correction” after I pointed out that in their uprating frenzy that had increased this one beyond nameplate capacity. DD3 was derated to 920kW in 2008, and 850kW in 2020. It has now been uprated to 1030kW according to an IR response – slightly over what YEC has claimed to be the nameplate capacity for at least the last 20 years. Without this capacity, YEC would miss N-1 criteria for 2024-25. Do we believe what YEC says now when in need of more capacity, or what YEC said for the last 20 years? Unfortunately they do not agree. Has YEC been providing false information for 20 years, or just this year?

I did not point out in my motion that DD1’s dependable capacity also now exceeds it’s nameplate capacity and correspondingly, YEC has not “corrected” it. Quite a story behind DD1. 800kW nameplate capacity, derated to 720kW in 2008 and 650kW in 2020. Called a “failed generator” in NY-YEC-1-2 Revised, and yet uprated to 850kW, with a nameplate capacity still remaining at 800kW. Unfortunately YEC has no documentation to show how this happened or what it cost.

It would be nice to know that YEC had limited their false representations to permit issues and Section 49. Unfortunately that is not the case, as shown by YEC’s failure to provide any actual documentation of these phantom upratings that conveniently match exactly what is needed to meet N-1 criteria. Had these upratings been legitimate, YEC would have been able to point proudly to increased capacity with no cost, and would have mentioned this success in the GRA. No mentions, no documentation, just increased capacity. Wave the pen, change the numbers.

So has YEC limited their false representations to capacity issues? Can the rest of the GRA be trusted? Unfortunately we have no way of knowing for sure. I wondered about this as I began to look at the cost of the rentals by season and by fiscal year, and noted that using the numbers from YEC’s Contract Registry provided consistently lower costs than what was claimed in the GRA. This was true for all years of rental diesel, diesel replacement and even vehicle purchases.⁶⁹ I did not have time to check other items in the Contract Registry. Has YEC exaggerated costs in the GRA, just as they have with diesel capacities? At this point my patience with YEC’s games ran out, as did any remaining confidence I had in this GRA. Do we need to confirm every number in the GRA? There may be reasonable explanations, but given YEC’s false representations concerning capacity issues, nothing in this GRA can be accepted at face value.

67 2008 Generation Inventory included as Attachment M.

68 From the 2003 Generation inventory and up through NY-YEC-1-2, DD3 had a nameplate capacity of 1000kW. In NY-YEC-1-2 REVISED it was “corrected” to 1030kW.

69 The Contract Registry is available using the link below. I am linking to an archived version of the contract registry because YEC has subsequently removed some of the items that I looked at. I looked first at rental diesel, and the numbers didn’t match the GRA. Even numbers such as Vehicle Purchase don’t match, with the GRA cost being being higher in the examples I checked. Vehicle purchase from Whitehorse Motors for \$620,322.09 in the Contract Registry becomes .624 million in the GRA.
<https://web.archive.org/web/20231206222505/https://yukonenergy.ca/about-us/purchasing-tenders/contract-registry>

9) Looking ahead and what needs to happen.

This list is not complete or final and is intended as an exploration of the consequences of YEC's poor choices.

Despite Mr. Mollard saying that *"if I was told I had to remove those units, I'd send them back to the supplier and I wouldn't pay for them"* I think we all realize that it's a bit more complicated than that.

Aside from the financial mess, there's the issue of having safe and reliable electricity now and in the coming years. I will address that and more in the list below.

- a) Should a GRA with so much false information even be accepted? How do we know which parts are valid? Are we wasting our time even looking at it? The trust has been broken. How do we fix that?
- b) If this GRA is allowed to proceed, any costs of unusable rentals (not assessed / permitted and "spares") should be deducted, as these provide no benefit to the public. This includes rentals in Whitehorse, Mayo and Faro.
- c) 2/5 of infrastructure costs for Mayo should be deducted, as it cannot be used.
- d) YEC should be directed to submit an application immediately for assessment of adding 12 MW of rental diesel in Whitehorse to address the permit that expired on March 31, 2022.
- e) Immediate application for a proper assessment of added rental diesel in Faro, as the current assessment and permit were based on YEC giving false information to the Department of Environment. And then there's the proposed expansion from 15.5 MW to 20.6 MW for 2024-25. An Executive Committee Screening any way you look at it.
- f) Cost of new Faro infrastructure deducted pending assessment.
- g) If it cannot be addressed within this GRA, review and variance concerning the 2021 GRA, refunding costs of rentals and associated infrastructure that was not assessed or permitted, and reviewing N-1 shortfalls in relevant years. While Board Order 2022-03 limited the R&V filing deadline to 30 days, it did not consider the possibility of YEC knowingly providing false information to the Board. Section 3 of the Board's Rules of Practice however, allows for an R&V at any time as follows: *(3) The Board may, with or without a hearing, exercise its discretion under this section before or after the expiration of a time limit specified in these rules or a direction by the Board.* Failure to act would mean that the Board accepts false information in the GRA process, as long as it is not immediately obvious.
- h) Potential R&V of the 2017 GRA concerning costs of the rentals and associated infrastructure and N-1 shortfalls in relevant years.
- i) There is some precedent for the Board to follow in terms of fines and refunds for utilities illegally hiding information from the Board, looking at the results of ATCO in Alberta and their "work conducted in an effort to mislead and conceal information". An article outlining some of the fines, refunds and penalties is included as [Attachment T](#).
- j) Penalties for repeatedly providing false information to the Board, the Department of Environment and the public. From what I can tell, the Utilities Act provides no guidance on the consequences of fraud perpetrated by the utility, nor do the Board's Rules of Practice. I would suggest looking at the amount that YEC would have overcharged customers for the next 5-10 years had this ruse continued, or perhaps some fixed amount of (\$100-200?) per customer for each month that the generators remained without proper assessment or permitting. More analysis is needed of course to find a proper settlement. Just some ideas on this one. If this is not within the power of the Board, the Board should provide support in making it happen. Does money make up for the noise and annoyance of running generators without assessments or the broken trust? Probably not.
- k) Some of this may be addressed in the Environment Act, at least where false information was provided to the Department of Environment, in Sections 12, 14, 172 and 173. These could be used as a framework for similar sections in the Utilities Act.
- l) Removal of YEC Board of Directors for failure to ensure YEC operated in an ethical manner, as any corporation and particularly a Crown corporation should, and one of the few requirements of their code of conduct. *"This means that directors and officers must ensure that the corporation complies with all laws*

and regulations that govern the conduct of its business and that the corporation acts ethically in its business dealings and community relationships.”⁷⁰ They have failed in this basic responsibility.

m) An administrator should be appointed under section 65 of the Public Utilities Act. If YEC is currently comfortable providing false information to the Board, the Department of Environment and the public, the Board cannot have confidence that board orders (pick an order, any order) is being properly enforced. The trust has been broken, given that false and significantly consequential information has been provided in this and the previous GRA.

n) Recommendation that the Minister appoint an inspector under Section 86 of the Utilities Act to determine how things got this bad – systemic failures. Also to attempt to uncover any other violations, false information, inconsistencies, etc. Is there more than the phantom upratings and the exaggerated costs? YEC is in need of a cleanup.

o) While looking at the Utilities Act, Section 94 of the Utilities Act addresses public safety – “so as not to endanger the public health or safety.” Operating capacity that has not been assessed or permitted does not meet this requirement of the act. Phantom upratings are also an issue.

p) In clinging to their false interpretation of Section 49, YEC has wasted everyone’s time, including their own. All time spent on this was caused by YEC’s failure to respect the ratepayers and the public, the Board and the regulatory process. No costs for this GRA should be awarded to YEC for this entirely avoidable waste of everyone’s time. The cost of YEC’s failure of course extends well beyond the limits of this proceeding.

q) And the big one: While I would like to have all of the rentals removed immediately, I realize that this can’t and won’t happen yet. I would guess that in order to provide safe and reliable electricity, the Yukon Legislative Assembly will have to do something to temporarily allow the capacity that has not been permitted to be used in N-1 or other emergency conditions? But then giving YEC a temporary pass on YESAA requirements is perhaps a federal issue? Ongoing compensation for those affected by the noise and pollution is also appropriate pending assessments and permits. Aside from not being allowed, capacity that has not been subject to assessment or some sort of verification is certainly not safe or prudent.

r) Whatever temporary measures are implemented, Section 49 of YESAA can never be used in planning for an emergency. Section 49 as written is only to be used in response to an emergency. Depending on the loosening of rules and not assessing the consequences is not part of any prudent emergency plan.

s) The N-1 Standard is a planning criteria, requiring a specified amount of excess system capacity. This capacity should be available anytime it is needed, not just in a specific N-1 event or declared emergency. Clearly this excess capacity might be needed outside of the specific N-1 event used in planning, as a combination of failures could provide the same needs as the one N-1 event. Tying specific capacity to specific events is not prudent and defeats the purpose of the planning criteria.

⁷⁰ YEC Board Code of Conduct p.1 More can be found in YEC Board Terms of Reference for Board Chair (see III B), President and CEO and ESG. Code of Conduct and more available on the YEC website: <https://yukonenergy.ca/about-us/who-we-are/board-of-directors> Also see <https://www.canada.ca/en/treasury-board-secretariat/services/guidance-crown-corporations/directors-crown-corporations-introductory-guide-roles-responsibilities.html>

10) Conclusions, review and rental diesel addiction issues.

The integrity of these proceedings hinges on the utilities furnishing accurate, complete and honest information. In providing verifiably false information, YEC has not only attempted to fraudulently charge customers for inoperable backup capacity, it has also damaged the very process in which we are currently engaged. These proceedings depend on a certain level of trust, and now that it has been broken, it is difficult to see how best to proceed. Has YEC been honest and accurate, other than the documented instances where they have not?

YEC has not been honest in their claims about capacity, and in particular concerning assessments and permits for the rentals. YEC has a permit for 4.9 MW in Mayo and no authority to exceed this capacity, but claims 9 MW is available in the GRA. YEC's permit for 12 MW of rental diesel expired in 2022, but YEC still pretends this capacity is available and expects the board to allow them to charge customers for this inoperable capacity.

Back to the four elements of fraud,⁷¹ Specific to the 2023 GRA, YEC has:

- provided false information to the Board and the public in the GRA;
- was aware that the information was false;
- intended that the board accept and act on this this false representation;
- and this would have (and has) raised rates for all customers.

This while also

- Failing to respect N-1 contingency capacity planning criteria, putting us all at risk and not assuring a safe, reliable supply of electricity.

A quick partial review of YEC course of conduct concerning rental diesel, false information and unethical behavior:

2017: YEC receives a permit amendment for 5 rentals without an assessment one day after the legislation allowing such a change was rescinded.

2018: YEC's permit is amended to add a 6th rental with no assessment well after there was any authority to make such a change.

2020: YEC submits false information to the Department of Environment and uses project splitting and superseded documents to add capacity to their permit in Faro.

2021: In the 2021 GRA, YEC claims without evidence that they can operate capacity that has not been assessed or permitted in emergency situations using Section 49 of YESAA. This is not true, as they well know. The Board accepts YEC's unfounded and false claims and customers are charged for inoperable capacity.

2022: YEC's permit for rentals and N-1 capacity in Whitehorse expires. YEC ignores this, and hopes everyone else does too.

2023: YEC again knowingly submits false information to the Yukon Utilities Board in another attempt to charge customers for capacity that they know they have no authority to operate under any conditions. YEC presents false and deceptive information to the public in Whitehorse, and so much more.

My evidence is all backed by documents from YEC, the Department of Environment and YESAB. YEC recklessly backed their claim to the application of Section 49 of YESAA exclusively on their own repetition of incorrect information. In IR responses YEC altered statements from the Department of Environment to change meanings. False and deceptive information from a public company. I hope the Board agrees that this is not at all acceptable.

71 Hryniak v. Mauldin, 2014 SCC 7 (CanLII), [2014] 1 SCR 87

YEC has not developed any significant new renewable capacity since 2011,⁷² but has added quite a bit of diesel and a bit of LNG. The energy transition? Our Green Future? We're going the wrong direction. Failure to implement renewable capacity is followed by failure to implement rental diesel correctly. And as long as there are no renewables happening, rental diesel will be increasing. YEC needs to start respecting Yukon residents and performing proper assessments on all of this diesel rather than charging us for inoperable capacity.

How many diesels are expected in the coming years? 25? 35? 46? YEC provided a forecast during the Atlin/THELP proceeding, which is included as [Attachment U](#). So far we're tracking the worst case scenario in column A, which is close to agreeing with YUB-YEC-1-1 (c), a similar but more detailed table. [Attachemnt V](#) provides a graphic representation. I had asked for an update to these forecasts in an IR, and the Board requested data past 2028 for their table also, but YEC now claims to be unable to forecast past 2028.⁷³ This is yet another example of YEC not respecting the process. Nothing has changed that would prevent them from making a forecast. But what has changed? In the Atlin/THELP proceeding, YEC made the approval of the EPA feel urgent by showing that the only options they had were the Atlin EPA and Moon Lake, or a potentially impossible number of rental diesels. Rather than present the very bad news, YEC withholds information from the Board and the GRA proceeding, saying they are unable to forecast.

And it is very bad news. Without Moon Lake and Atlin, YEC will need many more rentals. Finning has no more available and YEC has no place to put them if they do find them.

*"YEC currently has the entire fleet of such rentals from Finning for the 2023/2024 winter and we are currently looking for alternative vendors through an RFQF process for future years."*⁷⁴

and

*"For example, without new resources beyond DSM and WH#2 uprate the N-1 shortfall would grow to 61.2 MW by winter 2030/31 which would require 35 rental 1.8 MW diesel units (see Table 3-1). In addition to the challenges finding this number of rental diesels, YEC would also face location and connection issues to safely connect diesel rental units to YIS."*⁷⁵

Yes, a very serious problem after 2028, and not addressed by anything in the current GRA. But instead of informing the Board, YEC is withholding information. Is the Board not supposed to know that YEC is in trouble after 2028? YEC chooses not to provide complete, accurate and honest information again, just as they did with their Section 49 N-1 permitting schemes and other capacity issues.

YEC has serious capacity issues and a rental diesel addiction that has exceeded what their dealer can provide. It's gotten so bad that YEC can't be trusted to tell the truth, making wild claims about Section 49 and mysterious undocumented generator upratings, and taking money from ratepayers based on these wild and false claims. It's time for an intervention, before things get worse. Hello YEC, the first step is admitting you have a problem.

And this really is the direction to take. After the penalties that YEC needs to face for defrauding ratepayers, it's about rehabilitating the company to be functional in the future. It would be great to see honest management with a track record of successfully implementing renewables. It's time for a reset. It won't be easy. There are no quick fixes, and it's high time we start doing the job right.

But without complete and honest information from YEC, these proceedings are meaningless.

72 NY-YEC-1-10 Consolidated IRs pdf p.32

73 YEC has also told the Board that forecasting beyond 2028 is impossible, and the Board also questions this in follow-up question 2 in Appendix A to Board Order 2023-25 pdf p.4.

74 NY-YEC-1-20 Consolidated IRs p.86

75 YEC Atlin/THELP EPA Submission Amended EPA Clean pdf p. 23 footnote 23. And they meant table 4-1 on p. 23. That and a rather scary Figure 4-1 from the same document is included as [Attachment V](#). Scary when Moon Lake and Atlin are eliminated.

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- Attachment A: YESAB 2023-0090 Decision Document Page 1, highlighting added:



Yukon Environmental and Socio-economic Assessment Act

Decision Document

This document meets the decision bodies' requirements as set out in the *Yukon Environmental & Socio-economic Assessment Act*.

Decision Bodies for this Project

Yukon government

Project

Project Name	Mayo Secondary Thermal Generation Project	YESAB File	2023-0090
Proponent Name	Travis Ritchie		
Company Name	YEC		

Project Description

Project Scope - Summary

The purpose of the Project is the installation and operation of a secondary thermal generating station near the Village of Mayo. The Project would consist of the installation and operation of five (5) diesel generators, located at the existing Mayo Hydro Generating Station, with a maximum production capacity of 4.9 MW. The Project would be located approximately 7 km north of the Village of Mayo, in the Traditional Territory of the First Nation of Na-Cho Nyak Dun. Construction is estimated to begin late 2023 with project activities operating seasonally as needed, for 10 years.

Project Scope - Activities

Laydown and Siting

- On previously disturbed land currently owned by the Proponent
 - Site grading, compacting, and installation of standard grounding grid
- Installation and Operation of Five (5) Rental Diesel Generators
- EPA Approved Tier 2 Caterpillar 3516C Diesel Generators, each with a 1.8 MW nameplate capacity (for a total of 9 MW nameplate capacity)
 - Stored in containerized mobile trailer units and placed on a gravel pad at the site.
 - **Maximum operating (production) capacity of 4.9 MW during peak demand (winter) and during N-1 emergencies**
 - **Up to two generators to be reserved for back-up use only**
 - Connected to Yukon Energy's SCADA system and will be configured to operate remotely, as required
- Fuel Storage and Use
- Diesel: Up to 150 000 L in two 75 000 L portable double-walled storage tanks
 - Estimated maximum fuel usage of up to 62 000 L per week between December and April, annually
 - Delivered by B-Train fuel truck
 - Installed with spill prevention measures including secondary containment, continuous monitoring, and recovery system
- Communication
- Winter 2023-2024 generation capacity report communicated to the First Nation of Na-Cho Nyak Dun and Village of Mayo in spring of 2024
- Decommissioning

- **Attachment B: YESAB 2023-0090 Department of Environment Regulatory Reminder**
Highlighting added.

**DEPARTMENT OF ENVIRONMENT
YESAA – ASSESSMENT COMMENT**

YESAB Project #:	2023-0090		
Project Title:	Mayo Secondary Thermal Generation Project		
Date:	July 20, 2023		
Name:	Matthias Zinsli	Branch:	Environmental Protection and Assessment
Phone:	867-667-5934	Email:	matthias.zinsli@yukon.ca

Valued Ecosystem and/or Socio-Economic Components:

Value 1: Air Quality

Information Request/Request for Clarification:

1. The Proponent should provide basic air quality analysis specific to the Mayo project, showing the potential impacts of reduced air quality to nearby receptors. The air quality analysis should include the 2025 Yukon ambient air quality standards.
2. The Proponent should comment on whether or not the project is expected to impact use of the Five Mile Lake territorial campground.

Discussion:

The Proponent cites two different air quality reports from previous YEC projects in Faro and Whitehorse. However, air quality analysis relies on assumptions based on local area conditions, i.e. climate, topography, background and air quality, etc. Results of air quality analysis from one location should not be directly applied to another location without accounting for variations in local conditions. Further, a new, more stringent standard for NO₂ will come into effect on January 1, 2025. As the temporal scope of this project extends beyond 2025, the Proponent should take that standard into consideration.

The Five Mile Lake territorial campground is located in close proximity to the proposed diesel generator laydown area (approximately 750m away). As the campground was not mentioned in the project proposal, it is unclear if the Proponent has evaluated diesel generator operations against campground use

Regulatory Reminders:

The regulator is unable to provide authorization to operate above the assessed capacity in the event of an emergency situation. The *Environment Act* and *Air Emissions Regulations* do not contain processes for managing emergency situations from a proponent or regulator perspective.

• **Attachment C: Current YEC Air Emissions Permit, See Part 9**

Amended 4-Oct, 2018. Part 9 concerns temporary rental diesel.

https://yukonenergy.ca/media/site_documents/Air_Emissions_Permit_60-010_Amendment_2.pdf



Permit No: 60-010

AIR EMISSIONS PERMIT

Issued Pursuant to
the *Environment Act* and the *Air Emissions Regulations*

Permittee: Yukon Energy Corporation

Mailing Address: Box 5920, Whitehorse, Yukon, Y1A 6S7

Site Locations: Generating Plants at:
- Dawson
- Faro
- Mayo
- Whitehorse

Authorized Representative: Travis Ritchie
Phone/Fax: (867) 393-5350 / (867) 393-5322
Email: travis.ritchie@yec.yk.ca

Effective Date: Date of Director's signature

This permit has been amended and replaces permit #60-010 issued on December 15, 2017.

Expiry Date: December 31, 2024

Scope of Authorization: In accordance with your application, you are authorized to operate electricity generating equipment at the above site locations (the "site(s)"), as set out in the terms and conditions of this permit.

Dated this 4th day of October, 2018

A handwritten signature in black ink that reads "T. Powell".

Director, Environmental Programs Branch
Environment Yukon

PART 1: DEFINITIONS

1. In this permit,

"Act" means the *Environment Act*, R.S.Y. 2002, c. 76, as updated from time to time;

"approved plan" means a plan that is submitted by the permittee and approved by an environmental protection analyst under this permit and includes any terms and conditions specified by the environmental protection analyst in the approval;

"area of influence" refers to that area as determined in the Permittee's air dispersion modelling submitted to the Branch in 2011 for Whitehorse and in 2012 for Dawson City;

"associated personnel" means all employees, contractors and volunteers involved in the permitted activities;

"Branch" means the Environmental Programs Branch, Environment Yukon;

"emission factor" means the mass emission of a pollutant per unit of energy produced in either grams per kilowatt-hour (g/kWh) or kilograms per megawatt-hour (kg/MWh);

"emission rate" means the average rate in grams per second (g/s) or kilograms/hour (kg/h) at which a pollutant is emitted from a source, determined either:

- i) as estimated based on emission factors derived from published literature regarding sources of similar type and age (estimated emission rates); or
- ii) as derived from measured data obtained from manual stack testing carried out by the permittee (measured emission rates);

"environmental protection analyst" means an employee of the Branch so designated by the Minister of Environment under the Act;

"environmental protection officer" means an employee of the Government of Yukon so designated by the Minister of Environment under the Act;

"N-1 Event" is a situation where a transmission line, generating unit, or any other element within either the Whitehorse-Aishihik-Faro or Mayo-Dawson system fails, and consequently requires emergency back-up to avoid rolling black-outs in any of the communities;

"Regulations" means the *Air Emissions Regulations*, O.I.C. 1998/207;

"source" means a fuel-fired electricity generator which has a maximum nameplate capacity equal to or more than 1.0 megavolt-ampere;

"total annual emissions" means the emissions derived by multiplying emission factors or measured emission rates for each source by the previous three-year average total energy production for that source.

2. Any term not defined in this permit that is defined in the Act or the Regulations has the same meaning as in the Act or the Regulations.

PART 2: GENERAL

1. No condition of this permit limits the applicability of any other law or bylaw.

2. The permittee shall ensure that all activities authorized by this permit occur on property that the permittee has the right to enter upon and use for that purpose.
3. The permittee shall ensure that all associated personnel:
 - a) have access to a copy of this permit;
 - b) are knowledgeable of the terms and conditions of this permit; and
 - c) receive the appropriate training for the purposes of carrying out the requirements of this permit.
4. The permittee shall provide notice in writing to an environmental protection analyst prior to any significant change of circumstances at the site, including without limitation:
 - a) discontinuation of any regulated activity at the site;
 - b) change of ownership of the site or any of the sources; and
 - c) change to the mailing address or phone number of the permittee.
5. The permittee shall obtain approval from an environmental protection analyst prior to:
 - a) any addition, modification, removal or replacement of any equipment or components related to the release, abatement, control or treatment of air emissions; or
 - b) any change in location of the source(s).
6. Where conflicts exist between this permit, the permit application or any plans, this permit shall prevail.
7. If an inspection reveals that the site or source(s) is in any way not in compliance with this permit, the permittee shall repair the damage or take other actions as required to bring the site or source(s) into compliance.
8. For clarity, all obligations of the permittee under this permit survive the expiry date to the extent that each is not superseded by one or more conditions in a subsequent permit.

PART 3: OPERATION AND MAINTENANCE

1. The permittee is authorized to operate three liquefied natural gas generators; and five generators running exclusively on diesel fuel at the Whitehorse Station, and diesel generators at Mayo, Dawson and Faro stations. The permittee must obtain a permit amendment prior to adding any additional liquefied natural gas generators at the Whitehorse station.
2. In accordance with the manufacturer's recommendations and best management practices, the permittee shall inspect, maintain and operate the sources, any stand-alone air pollution control equipment, and testing and monitoring equipment as necessary to provide optimum control of air contaminant emissions during all operating periods.
3. Except for maintenance or test purposes, the permittee shall run the sources at each site in order of highest possible efficiency under the circumstances.

4. The permittee shall ensure that the fuel used by the source(s) conforms to the most recent Canadian federal *Sulphur in Diesel Fuel Regulations* for off-road applications.

PART 4: RELEASE OF CONTAMINANTS

1. The visible emissions from any source shall not exceed an opacity of 20% as measured by an environmental protection officer.
2. In the event that the opacity of emissions from any source exceeds the criterion established in Part 4.1 of this permit, the permittee shall take measures to reduce the opacity of the emissions below that criterion as directed by an environmental protection officer.
3. The permittee shall ensure that particulates collected using emission control equipment are contained so that there is no release of contaminants to the atmosphere or into an open body of water.
4. If ambient air quality monitoring data within the area of influence of the Permittee's facility indicates that one or more of Yukon's Ambient Air Quality Standards is being exceeded, and the environmental protection officer is satisfied that the Permittee's facility is the cause or a significant contributor to the prevailing ambient air quality condition, the Permittee shall undertake such mitigation measures as may be specified by the environmental protection officer to improve the ambient air quality condition.

PART 5: MONITORING EMISSIONS

1. If any diesel generator has exceeded 3% of its annual potential to emit in a calendar year, and, in that same calendar year, if the total operating time of all the generators at that site exceeds 3% of their total annual potential to emit, the permittee shall create a emissions management plan to be submitted to the analyst for approval.
2. The permittee shall carry out any commitments in the approved emissions management plan on a schedule that is approved by the analyst.
3. The permittee shall quantify, through monitoring or calculations based on emissions data and published emissions factors, the levels of volatile organic compounds (VOCs) released in normal operations annually from the liquefied natural gas operations at the Whitehorse station.
4. The permittee shall quantify the fugitive emissions of methane (CH₄) from the point of unloading of the liquefied natural gas into the storage tank to and including any emissions from the generator not emanating from the stack at the Whitehorse station.

PART 6: REPORTING

1. The permittee shall submit to an environmental protection analyst a report which identifies:
 - a. the total annual operating hours for all sources at all sites;
 - b. the estimated total annual emissions of SO₂, PM_{2.5}, CO, NO₂, and N₂O from each source at each of the sites, including the calculation used to determine those results;
 - c. total annual emissions of volatile organic compounds (VOCs) as required in part 5.3 of this permit; and,
 - d. a summary of the fugitive CH₄ monitoring program including methodology, data, and total fugitive emissions as required in part 5.4 of this permit;by March 31st of each year of this permit for the previous calendar year.

PART 7: UNAUTHORIZED EMISSIONS

1. The permittee shall contact either an environmental protection officer or the 24-hour Yukon Spill Report Centre (**867-667-7244**) as soon as possible under the circumstances in the event of an unauthorized release or emission, such as fugitive emissions or emissions resulting from burning fuel other than that allowed for under this permit.

PART 8: RECORDS

1. The permittee shall keep all records required under this permit in a format acceptable to an environmental protection officer for a minimum of three years and make them available for inspection by an environmental protection officer upon request.
2. The permittee shall keep the following records:
 - a) a copy of each report and approved plans developed under this permit, and any amendments to and approvals (if applicable) of each report and plan;
 - b) summaries of all inspections carried out under this permit (including the name of the person conducting the inspection, the date of each inspection, any observations recorded during the inspection, actions taken as a result of those observations, and the date each action was taken);
 - c) notes concerning any spills, leaks or unauthorized emissions occurring at the site, including substance involved, estimated quantity, date of observation of the spill or leak, spill reports made and clean-up procedures implemented;
 - d) any and all deficiencies remedied in accordance with Part 2.7, and how and when they were remedied; and
 - e) notes concerning any instance where the most efficient source was not used in accordance with Part 3.3 and the reason for use of the less efficient source.

PART 9: EMERGENCY BACK-UP DIESEL GENERATORS AT WHITEHORSE STATION

1. The permittee is authorized to operate up to six emergency back-up generators, to a maximum cumulative total of 12 MW (2MW maximum capacity per unit), exclusively on diesel fuel at the Whitehorse Station only in the event that an N-1 event occurs, and

periodically for short periods to confirm operational readiness, up until March 31st, 2022, unless otherwise approved by the Branch.

2. In accordance with the manufacturer's recommendations and best management practices, the permittee shall inspect, maintain and operate the sources, any stand-alone air pollution control equipment, and testing and monitoring equipment as necessary to provide optimum control of air contaminant emissions during all operating periods.
3. Except for maintenance or test purposes, the permittee shall run the sources at each site in order of highest possible efficiency under the circumstances.
4. The permittee shall ensure that the fuel used by the source(s) conforms to the most recent Canadian federal *Sulphur in Diesel Fuel Regulations* for off-road applications.



#2 Miles Canyon Road
Box 5920, Whitehorse
Yukon Y1A 6S7
yukonenergy.ca

IR1.2

The document further states that the maximum operating capacity of the Project will be 4.9 MW, during peak demand (winter) and during emergencies. However, the Yukon Energy website (yukonenergy.ca) has no definition of 'operating capacity', only 'capacity' which is defined as: "the amount of electricity that is available at any given time. It is measured in watts, kilowatts (one thousand watts), megawatts (one million watts), or gigawatts (one billion watts)". Similarly, the Canada Energy Regulator defines 'capacity' (in terms of electricity) as, "the maximum amount of power that a device can generate, use, or transfer; usually expressed in megawatts."

- a) Please define the term "operating capacity" as it is used in reference to the Project and how it differs from the "nameplate capacity" of a generator.

YEC Response:

For Yukon Energy, *Operating Capacity* refers to the maximum generating threshold, in megawatts (MW), as defined under a thermal generating station's Air Emissions Permit.

For Yukon Energy, *Capacity* may refer to either the nameplate capacity of a specific generator or the current rated capacity of the unit (whichever is less). The term may also be used to describe the overall installed or available generating capacity of the station, which would be the sum of nameplate or rated capacity of the individual units installed at the facility.

IR1.3

According to Schedule 3, Section 25 (b) of the Assessable Activities, Exceptions and Executive Committee Projects Regulations the construction of a fossil fuel-fired electrical generating station with a production capacity of 5 MW or more is required to be submitted for screening to the YESAB Executive Committee. As the Project is proposing to operate at 0.1 MW below this threshold, please confirm that the operation of the Project will not exceed 4.9 MW at any time, even during emergencies.

YEC Response:

As outlined in the response to IR1.1a, Yukon Energy is seeking authorization from the Yukon Government to operate up to 4.9 MW of fossil fuel-fired electrical generating equipment at any one time at the Project site. As with all Yukon Energy thermal generating stations, any use of the installed *Capacity* higher than the Air Emissions Permit *Operating Capacity* threshold would require approval by the authority having jurisdiction, in this case the Yukon Government Environment Department. If ever required, such approval might be granted in an emergency and would be subject to the provisions of YESAA in this regard (i.e., Section 49(1) and 49(2)).

Thank you for your time and consideration of these responses and our project proposal.

Yours Truly,

A handwritten signature in blue ink, appearing to read "Travis Ritchie".

Travis Ritchie
Director – Risk and Compliance



- Attachment E: Letter from Department of Environment, Nils Clarke, Feb 17, 2022
(Page 2 has relevant highlighted quote – this page included for date reference)



Department
PO Box 2703, Whitehorse, Yukon Y1A 2C6

February 17, 2022

Nathaniel Yee
PO Box 89
Faro, YT Y0B 1K0

Dear Nathaniel Yee:

Re: Permit and Assessment Yukon Energy Corporation Faro Generating Station

Thank you for your November 11, 2021, letter and for your patience in awaiting our full response, as indicated in our December 13, 2021. I would like to acknowledge the time and care you put into reviewing the documents related to the concerns you raised; your engagement on this issue is appreciated.

You asked a number of questions and noted concerns about our processes, Air Emissions Permit 60-010 and Yukon Energy Corporation's (YEC) compliance with the permit. In response, we have provided further information and outlined several improvements to the Department of Environment permitting that will clarify and support compliance in the future.

In your letter, you questioned why YEC could use generators that are permitted for emergency (N-1) use during regular operations. Units listed in Part 9 of the permit are authorized in addition to those in Part 3 of the permit. This means at the Whitehorse station, YEC may use three liquefied natural gas (LNG) generators and up to five diesel generators under normal operations and may use up to six additional diesel generators under N-1 conditions. After reviewing the details of the permit, it appears there is some confusion around what is permitted for normal operations and what is permitted for N-1 operations.

Going forward, the Environmental Protection and Assessment (EPA) Branch will ensure new and amended permits specify the maximum generation capacity for each site in megawatts by generation source (e.g.: LNG or diesel). This will provide clarity and consistency with the permit applications and reflect the most recent assessment completed under the Yukon *Environmental and Socio-economic Act (YESAA)*. In addition, permits will be revised to include definitions for operational capacity, cumulative station capacity, name plate capacity, and production capacity. Limits will be specified using the appropriate term to avoid confusion. Permit terms will be clear about the maximum capacity that can be generated under both normal and emergency (N-1)

conditions. We will also clarify that emergency capacity is in addition to normal operational capacity.

You noted concerns about YEC operating more generators than they are permitted to operate and other issues relating to their compliance with their air emissions permit. Environmental Protection Officers have prioritized this permit and will conduct inspections of the Whitehorse and Faro facilities in 2022. They will determine whether the permittee is currently in compliance with their permit and will use the tools available under the *Environment Act* to bring the permittee into compliance, if and as required.

You asked about how the Department of Environment supports YESAA, in particular, the purposes of the Act. The department is updating its processes so that in the future, permits will not allow for the generation of any capacity that has not been included in the YESAA assessment. This will include the capacity associated with generators to be installed and used under emergency (N-1) conditions. In combination with the changes we will be making to the permits, this should address this concern going forward.

With regard to your concerns about our authorization of an increase in capacity in Faro and how this impacts the current review of the Faro expansion project; as you are likely aware, the Yukon Environmental and Socio-Economic Assessment Board (YESAB) will not retroactively assess activities. For reference, as noted in Information Request #2 in the 2021 assessment of the Faro Generating Station Capacity Expansion Project (YESAB project number 2021-0115), YESAB states: "However, YESAB does not assess activities already undertaken and only assesses activities proposed to be undertaken in Yukon (Section 47(2))."

Based on comments submitted through the current review, it appears that one of the main concerns with YEC's proposed activities relates to increased noise. EPA Branch will use the tools available under the *Environment Act* and *Air Emissions Regulations* to have YEC mitigate this impact to the extent possible.

Once again, thank you for devoting your time and attention to this matter. We value any opportunity to examine and improve our processes. Please contact Bryna Cable, Director of Environmental Protection and Assessment, at bryna.cable@yukon.ca or 867-667-8771 if you have any further questions.

Sincerely,



Nils Clarke
Minister of Environment

cc John Streicker, Minister responsible for Yukon Energy Corporation



Department of Environment
PO Box 2703, Whitehorse, Yukon Y1A 2C6

May 25, 2022

Nathaniel Yee
Email: travelslowly@gmail.com

Dear Nathaniel Yee:

RE: Permit and Assessment Yukon Energy Corporation Faro Generating Station

Thank you for your April 14, 2022 letter and your continued attention to this matter. We have noted your specific requests for information and the focus on action expressed throughout your letter. Since our first correspondence in 2020, as planned, we have updated our practices, prioritized enforcement, and amended our permits for clarity.

Below are responses to your questions that apply to the Department of Environment permitting process. Some of your other questions would be better directed to Yukon Energy Corporation (YEC) or Yukon Environmental and Socio-Economic Assessment Board (YESAB).

In your recent letter, you requested more information on the rationale for the application of previous decision documents. With respect to the Whitehorse Generating Station, the decision to allow for the emergency generators was made when the Yukon Environmental and Socioeconomic Assessment Act (YESAA) contained section 49.1. When in force, subsection 49.1(1) stated a new assessment of a project or existing project is not required when an authorization is renewed or amended unless there had been a significant change to the original project. Our review of the activities proposed at that time and the previous assessments are captured in the document "Record of Determination of Significant Change", of which you have a copy. Since this decision was made, YESAA was amended to remove s. 49.1(1). This process is no longer applicable to any current decisions.

We would also like to clarify that the emergency capacity described in part 9 of the permit was exclusive to the Whitehorse station. This did not include the five diesel generators permitted for non-emergency conditions at the Whitehorse station. Since that time, permitting has changed. The generation facility in each different community is regulated under a separate permit instead of a combined permit applying to all facilities. As of May 2022, the authorization for this emergency capacity has not been included in the Whitehorse station permit. As stated above,

.../2

Nathaniel Yee
Page 2
May 25, 2022

the YESAA subsection used to authorize this capacity previously has been repealed. Thus, this authorization has been removed from the permit and YEC has been directed to seek a new assessment for this activity.

In the case of Faro, the 10.6 MW of capacity applied for in 2020 had been assessed in 2008 and 2011. The project was allowed to proceed based on those assessments. We understand your concern that the 2021 assessment for Faro was not completed by the YESAB Executive Committee. However, the assessment undertaken by the Designated Office was appropriate for the project as proposed and the assessment findings remain valid.

We noted several of your questions focused on compliance and enforcement. Our primary mechanism of enforcement is through site inspections. As previously mentioned, inspections have been prioritized in 2022 for the Faro and Whitehorse stations. If a compliance officer finds the operation of the site is out of compliance with the terms of the permit, then enforcement actions are taken to bring the permittee into compliance.

Thank you for taking the time to review these assessments and the regulatory process. The Government of Yukon strives to act fairly and efficiently in our regulatory capacity. You specifically requested action regarding emergency capacity. We can confirm the permit terms for emergency capacities have been removed for Whitehorse and Faro Generating Stations. Any increase in capacity above 50kW will require a new YESAA assessment. We hope the actions described above demonstrate our commitment to continuous improvement and satisfy your expressed desire for action.

Sincerely,



Bryna Cable
Director of Environmental Protection & Assessment
Department of Environment

Relevant sections highlighted.

RECORD OF DETERMINATION OF SIGNIFICANT CHANGE

DATE: December 11, 2017

NAME OF DECISION BODY: Department of Environment

PROJECT NAME: Yukon Energy Corporation

YESAB File #: 2011-0241, 2013-0115

PROPONENT NAME: Yukon Energy Corporation

REGULATORY AUTHORIZATION(S), LEGISLATION AND PERMIT #:

1. **Air Emissions Permit**
Air Emissions Regulations, Permit #60-010

YESAA subsection 49.1(1) states: "A new assessment of a project or existing project is not required when an authorization is renewed or amended unless, in the opinion of a decision body for the project, there is a significant change to the original project that would otherwise be subject to an assessment."

Following are the criteria, factors and analysis that have been taken into consideration by the Decision Body:

Criteria/Factors Considered	Analysis
<p>1. Is the activity listed in the <u>Assessable Activities, Exceptions and Executive Committee Regulations</u>? Identify the section of the regulations and how the exemptions do not apply.</p>	<p><u>Schedule 1, Part 4.2</u></p> <p><u>Activity:</u> Construction, operation, <u>modification</u>, decommissioning or abandonment of, or other activity in relation to a fossil fuel-fired electrical generating station.</p> <p><u>Specific Exemption:</u> Construction, operation, modification, decommissioning or abandonment of, or other activity in relation to, a wind-powered electrical generating station if its production capacity is, and in the case of a modification remains, 50 kW or less.</p> <p>The exemption does not apply because the modification is specific to fossil fuel-fired electrical generation.</p>

Criteria/Factors Considered	Analysis
<p>2. How has the project changed since the previous assessment?</p>	<p>Yukon Energy Corporation (YEC) have requested an amendment to their Air Emissions permit to include the use of four (with a potential 5th unit in 2018/2019) Tier 2 diesel engines to the Whitehorse facility for N-1 emergency use only, to address potential capacity gaps over the winter months on an interim basis.</p>
<p>3. Were the subject, scale and scope of the changes to the project identified in #2 above discussed in the previous Evaluation Report or Decision Document?</p> <p>If the changes were discussed in the Evaluation Report or Decision Document, did YESAB provide any comment on how these changes would affect the environment?</p>	<p>The installed thermal capacity that was assessed in 2011-0241 was 25.2 MW of diesel. In 2013-0115 two of the diesel engines identified in 2011-0241 were taken out and replaced by LNG units. The two diesel generators decommissioned were rated at 3.92 MW and 5.15 MW (9.1 MW total). They were replaced by 2 modern natural gas units rated at 4.4 MW each (8.8 MW total). The proposed additional temporary engines were not directly discussed in either of the past two assessments, however the overall capacity of the facility remains within the 25MW.</p> <p>The air quality impact assessments conducted for each WRGS plant configuration (25MW diesel in 2008 and 2011 and 16.1 MW diesel + 8.8 MW natural gas in 2013) indicated that no significant adverse human health effects would result even under the worst case operating scenario for either facility configuration (all units operating under the most adverse meteorological conditions).</p> <p>The potential for temporary use of up to five units with 10 MW of diesel generation, using more modern and cleaner operating EPA Tier 2 rated engines, is not anticipated to result in significant changes to the overall facility emissions and the conclusions of previous air quality impact assessments for the station.</p>
<p>4. Do any of the changes identified in #2 conflict with any of the terms and conditions of the Decision Document in the previous</p>	<p>N/A</p>

Criteria/Factors Considered	Analysis
assessment?	
5. During the previous assessment, did First Nations, organizations, other stakeholders, or the public indicate concerns about the project that could be intensified as a result of the proposed changes?	<p><u>2011-0241</u>: residents of Riverdale raised some concerns about the cumulative short and long term health impact of diesel emissions on the already poor air quality in their neighbourhood. Concerns were also raised about a potential increase to noise levels, and about industrial customers being required to supply their own power. These concerns were raised by residents, Riverdale Community Association, and Yukon Conservation Society.</p> <p><u>2013-0115</u>: Many concerns were raised about the use and transportation of LNG to Whitehorse. These comments were specific to impacts about use of LNG, rather than the removal of the two diesel engines and therefore falls outside of the scope of this determination of significant change.</p>
6. Do you consider the changes to the project to be "significant"? Why?	Yukon Environment has deemed that there are no significant changes to the project proposed.

RATIONALE FOR DETERMINATION

Two previous YESAA assessments are relevant to this determination:

- 2011-0241: renewal of Air Emissions Permit in order to maintain the ability to operate its diesel generating facilities.
- 2013-0115: construction and operation of natural gas powered, reciprocating engine driven generation station and associated liquefied natural gas transfer, storage and vapourization facilities on the site adjacent to YECs hydroelectric facility. The two LNG generators replaced two existing diesel generators which were at the end of their life cycle with a total capacity of 8MW (9.1 MW nameplate rating).

An N-1 emergency event is a very unlikely incident where an extended winter power outage occurs due to loss of their largest source of electricity (Aishihik hydro plant or Aishihik to Whitehorse transmission line). YEC's 2016 Resource Plan identified that should they find themselves in an N-1 event situation, they may not be able to produce enough electricity to meet demand at peak times. Without emergency

back-up, rolling black-outs would be initiated, which is not a preferable solution.

YEC will be renting four diesel engines as back up this winter (2017/18), which if all ran at the same time, would generate less emissions than the two which were taken out of service in 2013, due to higher efficiency. The units are Tier 2 engines that meet current US Environmental Protection Agency guidelines for diesel generators, and would be the cleanest in their diesel fleet at the Whitehorse facility. The applicant is requesting this emergency use be approved during the winter seasons until 2021, which is when they plan on having a more permanent solution to addressing the longer term capacity gap.

The potential need for a 5th unit is based on a load forecast and the consideration of historic winter temperatures. Should ongoing load monitoring and any updating of the load forecast suggest that an additional 2 MW is needed to protect against an N-1 event, then an additional unit would be temporarily installed during the winter period in 2018/2019 and in future winters until such time as a permanent solution can be brought into service to address the current capacity gap.

The potential significance of this change may be considered both in light of the capacity but also of the air emissions resulting from the activity. Notwithstanding the contribution of the natural gas generators, the temporary use of up to 10 MW of Tier 2 diesel engines, the air quality impact assessment from previous assessments that indicated that there would be no significant adverse human health effects would result even under the worst case operating scenario for either facility configuration (all units operating under the most adverse meteorological conditions).

The amended air emissions permit will include appropriate operational, reporting and record keeping requirements.

The Decision Body has:

Consulted with other decision bodies on the determination (if there are multiple decision bodies).	<input checked="" type="checkbox"/> N/A-there are no other decision bodies for this project.
Discussed determination with other regulator(s) on the determination (if applicable)	<input checked="" type="checkbox"/> The Department of Environment provided Yukon departments of EMR (O&G) and EMO, and the City of Whitehorse, with an opportunity to provide comments. No comments were received.
Ensured that First Nation consultation obligations are being met for this renewal or amendment	<input checked="" type="checkbox"/> The Department of Environment initiated written consultation with Ta'an Kwächän Council and Kwanlin Dün First Nations on November 28, 2017. No comments were received from either of these First Nations.

December 12, 2017

Page 4 / 5

March 4, 2021

Page 7

In the opinion of the Decision Body for this project, as noted in the reasons mentioned above, it has been determined that the renewal or amendment to the regulatory authorization:

- Requires a YESAA assessment
- Does not require a YESAA assessment



Todd Powell
A/Director, Environmental Programs
Department of Environment

December 12, 2017

Page 5 / 5

March 4, 2021

Page 8

- Attachment H: Air Emissions Permit, December 15, 2017.
6 pages, highlighting added. Part 9 on 5th and 6th pages are relevant.



Permit No: 60-010

AIR EMISSIONS PERMIT

Issued Pursuant to
the *Environment Act* and the *Air Emissions Regulations*

Permittee: Yukon Energy Corporation

Mailing Address: Box 5920, Whitehorse, Yukon, Y1A 6S7

Site Locations: Generating Plants at:
- Dawson
- Faro
- Mayo
- Whitehorse

Authorized Representative: Travis Ritchie
Phone/Fax: (867) 393-5350 / (867) 393-5322
Email: travis.ritchie@yec.yk.ca

Effective Date: Date of directors signature

This permit has been amended and replaces permit #60-010 issued on December 29, 2014.

Expiry Date: December 31, 2024

Scope of Authorization: In accordance with your application, you are authorized to operate electricity generating equipment at the above site locations (the "site(s)"), as set out in the terms and conditions of this permit.

Dated this 15 day of December, 2017

A handwritten signature in black ink, appearing to read "Travis Ritchie", written over a horizontal line.

Director, Environmental Programs Branch
Environment Yukon

DEFINITIONS

1. In this permit,

"Act" means the *Environment Act*, R.S.Y. 2002, c. 76, as updated from time to time;

"approved plan" means a plan that is submitted by the permittee and approved by an environmental protection analyst under this permit and includes any terms and conditions specified by the environmental protection analyst in the approval;

"area of influence" refers to that area as determined in the Permittee's air dispersion modelling submitted to the Branch in 2011 for Whitehorse and in 2012 for Dawson City;

"associated personnel" means all employees, contractors and volunteers involved in the permitted activities;

"Branch" means the Environmental Programs Branch, Environment Yukon;

"emission factor" means the mass emission of a pollutant per unit of energy produced in either grams per kilowatt-hour (g/kWh) or kilograms per megawatt-hour (kg/MWh);

"emission rate" means the average rate in grams per second (g/s) or kilograms/hour (kg/h) at which a pollutant is emitted from a source, determined either:

- i) as estimated based on emission factors derived from published literature regarding sources of similar type and age (estimated emission rates); or
- ii) as derived from measured data obtained from manual stack testing carried out by the permittee (measured emission rates);

"environmental protection analyst" means an employee of the Branch so designated by the Minister of Environment under the Act;

"environmental protection officer" means an employee of the Government of Yukon so designated by the Minister of Environment under the Act;

"N-1 Event" is a situation where an element within either the Whitehorse-Aishihik-Faro or Mayo-Dawson system (transmission line, generating unit, or any other element) fails, and would consequently require emergency back-up to avoid rolling black-outs in any of the communities.

"Regulations" means the *Air Emissions Regulations*, O.I.C. 1998/207;

"source" means a fuel-fired electricity generator which has a maximum nameplate capacity equal to or more than 1.0 megawatt-ampere;

"total annual emissions" means the emissions derived by multiplying emission factors or measured emission rates for each source by the previous three-year average total energy production for that source.

2. Any term not defined in this permit that is defined in the Act or the Regulations has the same meaning as in the Act or the Regulations.

PART 2: GENERAL

1. No condition of this permit limits the applicability of any other law or bylaw.

2. The permittee shall ensure that all activities authorized by this permit occur on property that the permittee has the right to enter upon and use for that purpose.
3. The permittee shall ensure that all associated personnel:
 - a) have access to a copy of this permit;
 - b) are knowledgeable of the terms and conditions of this permit; and
 - c) receive the appropriate training for the purposes of carrying out the requirements of this permit.
4. The permittee shall provide notice in writing to an environmental protection analyst prior to any significant change of circumstances at the site, including without limitation:
 - a) discontinuation of any regulated activity at the site;
 - b) change of ownership of the site or any of the sources; and
 - c) change to the mailing address or phone number of the permittee.
5. The permittee shall obtain approval from an environmental protection analyst prior to:
 - a) any addition, modification, removal or replacement of any equipment or components related to the release, abatement, control or treatment of air emissions; or
 - b) any change in location of the source(s).
6. Where conflicts exist between this permit, the permit application or any plans, this permit shall prevail.
7. If an inspection reveals that the site or source(s) is in any way not in compliance with this permit, the permittee shall repair the damage or take other actions as required to bring the site or source(s) into compliance.
8. For clarity, all obligations of the permittee under this permit survive the expiry date to the extent that each is not superseded by one or more conditions in a subsequent permit.

PART 3: OPERATION AND MAINTENANCE

1. The permittee is authorized to operate two liquefied natural gas generators and five generators running exclusively on diesel fuel at the Whitehorse Station, and diesel generators at Mayo, Dawson and Faro stations. The permittee must obtain a permit amendment prior to adding any additional liquefied natural gas generators at the Whitehorse station.
2. In accordance with the manufacturer's recommendations and best management practices, the permittee shall inspect, maintain and operate the sources, any stand-alone air pollution control equipment, and testing and monitoring equipment as necessary to provide optimum control of air contaminant emissions during all operating periods.
3. Except for maintenance or test purposes, the permittee shall run the sources at each site in order of highest possible efficiency under the circumstances.

4. The permittee shall ensure that the fuel used by the source(s) conforms to the most recent Canadian federal *Sulphur in Diesel Fuel Regulations* for off-road applications.

PART 4: RELEASE OF CONTAMINANTS

1. The visible emissions from any source shall not exceed an opacity of 20% as measured by an environmental protection officer.
2. In the event that the opacity of emissions from any source exceeds the criterion established in Part 4.1 of this permit, the permittee shall take measures to reduce the opacity of the emissions below that criterion as directed by an environmental protection officer.
3. The permittee shall ensure that particulates collected using emission control equipment are contained so that there is no release of contaminants to the atmosphere or into an open body of water.
4. If ambient air quality monitoring data within the area of influence of the Permittee's facility indicates that one or more of Yukon's Ambient Air Quality Standards is being exceeded, and the environmental protection officer is satisfied that the Permittee's facility is the cause or a significant contributor to the prevailing ambient air quality condition, the Permittee shall undertake such mitigation measures as may be specified by the environmental protection officer to improve the ambient air quality condition.

PART 5: MONITORING EMISSIONS

1. If any diesel generator has exceeded 3% of its annual potential to emit in a calendar year, and, in that same calendar year, if the total operating time of all the generators at that site exceeds 3% of their total annual potential to emit, the permittee shall create a emissions management plan to be submitted to the analyst for approval.
2. The permittee shall carry out any commitments in the approved emissions management plan on a schedule that is approved by the analyst.
3. The permittee shall quantify, through monitoring or calculations based on emissions data and published emissions factors, the levels of volatile organic compounds (VOCs) released in normal operations annually from the liquefied natural gas operations at the Whitehorse station.
4. The permittee shall quantify the fugitive emissions of methane (CH₄) from the point of unloading of the liquefied natural gas into the storage tank to and including any emissions from the generator not emanating from the stack at the Whitehorse station.

PART 6: REPORTING

1. The permittee shall submit to an environmental protection analyst a report which identifies:
 - a. the total annual operating hours for all sources at all sites;
 - b. the estimated total annual emissions of SO₂, PM_{2.5}, CO, NO₂, and N₂O from each source at each of the sites, including the calculation used to determine those results;
 - c. total annual emissions of volatile organic compounds (VOCs) as required in part 5.3 of this permit; and,
 - d. a summary of the fugitive CH₄ monitoring program including methodology, data, and total fugitive emissions as required in part 5.4 of this permitby March 31st of each year of this permit for the previous calendar year.

PART 7: UNAUTHORIZED EMISSIONS

1. The permittee shall contact either an environmental protection officer or the 24-hour Yukon Spill Report Centre (867-667-7244) as soon as possible under the circumstances in the event of an unauthorized release or emission, such as fugitive emissions or emissions resulting from burning fuel other than that allowed for under this permit.

PART 8: RECORDS

1. The permittee shall keep all records required under this permit in a format acceptable to an environmental protection officer for a minimum of three years and make them available for inspection by an environmental protection officer upon request.
2. The permittee shall keep the following records:
 - a) a copy of each report and approved plans developed under this permit, and any amendments to and approvals (if applicable) of each report and plan;
 - b) summaries of all inspections carried out under this permit (including the name of the person conducting the inspection, the date of each inspection, any observations recorded during the inspection, actions taken as a result of those observations, and the date each action was taken);
 - c) notes concerning any spills, leaks or unauthorized emissions occurring at the site, including substance involved, estimated quantity, date of observation of the spill or leak, spill reports made and clean-up procedures implemented;
 - d) any and all deficiencies remedied in accordance with Part 2.7, and how and when they were remedied; and
 - e) notes concerning any instance where the most efficient source was not used in accordance with Part 3.3 and the reason for use of the less efficient source.

PART 9: EMERGENCY BACK-UP DIESEL GENERATORS AT WHITEHORSE STATION

1. The permittee is authorized to operate up to five emergency back-up generators, exclusively on diesel fuel at the Whitehorse Station only in the event that an N-1 event occurs, and periodically for short periods to confirm operational readiness, up to March

31st, 2020, unless otherwise approved by the Branch.

2. In accordance with the manufacturer's recommendations and best management practices, the permittee shall inspect, maintain and operate the sources, any stand-alone air pollution control equipment, and testing and monitoring equipment as necessary to provide optimum control of air contaminant emissions during all operating periods.
3. Except for maintenance or test purposes, the permittee shall run the sources at each site in order of highest possible efficiency under the circumstances.
4. The permittee shall ensure that the fuel used by the source(s) conforms to the most recent Canadian federal *Sulphur in Diesel Fuel Regulations* for off-road applications.

• **Attachment I: Four questions to YESAB, 3 on March 3, 2023 and 4th added March 10.**

Subject: YESAB Executive Committee screenings are optional? A press release of sorts...

From: Nathaniel <TravelSlowly@gmail.com>

Date: 2023-03-03, 15:43

To: Lauren.Haney@yesab.ca, yesab@yesab.ca, Kathie.Thibaudeau@yesab.ca, Alyssa.Bergeron@yesab.ca

CC: AMY EM KENNY <amy.em.kenny@cbc.ca>, CHRIS WINDEYER <Chris.Windeyer@cbc.ca>, Stacey.Hassard@yla.gov.yk.ca, Kate White <kate.white@yla.gov.yk.ca>, Councillor Fetterly <councillor.fetterly@faroyukon.ca>, Councillor McHugh <councillor.mchugh@faroyukon.ca>, nils.clarke@yukon.ca, Bryna.Cable@yukon.ca

To: Lauren Haney, Chair of the Board and Executive Committee member,

I have a few questions for YESAB that have not been answered in my correspondence with the Watson Lake office and with Don McPhee.

It was unclear where to turn next, and given that some of my questions concerning Executive Committee screenings were ignored, it seemed appropriate to ask a member of the Executive Committee. If there is someone better positioned to answer, please forward and let me know who to contact.

A few names have been added to the Cc: list, and making this a press release of sorts. That is, I am including press and political folks who have shown an interest in this topic. I welcome coverage of this issue.

I am also including the Department of Environment in this email, as YESAB has said I should direct questions to the regulator / Department of Environment, while the Department of Environment has pointed me towards YESAB.

The main question is this:

Q1: Is an Executive Committee screening required for a 7.35MW expansion of a fossil fuel fired electrical generating station?

My understanding is that according to YESAA and this activity being listed in Schedule 3, the answer would be 'Yes'.

Schedule 3 Projects to Be Submitted to the Executive Committee, Part 26 reads as follows:

Expansion of a hydroelectric generating station, or a fossil fuel-fired electrical generating station, that increases production capacity by 5 MW or more.

The Evaluation Report for project 2021-0115 confirmed that this project has increased capacity by 7.35MW since the most recent (2014) YESAB assessment and yet there was no Executive Committee screening.

Q2: How is this in compliance with YESAA?

There were a number of interesting strategies used to avoid the Executive Committee screening. While some of them might stand on their own, the combination provides results that are not supported by YESAA.

If the assessment is allowed to stand, a number of interesting precedents will be set:

-A single project can be treated as two smaller projects to avoid an Executive Committee screening.

-At the request of the proponent, the most recent YESAB assessment can be ignored.

-An assessment is NOT required before a project is undertaken. Assessments can be initiated after a project is already in operation.

-An Executive Committee screening is NOT required for projects listed under Schedule 3.

Q3: How is each of these supported in YESAA, and is YESAB comfortable with other proponents using these strategies?

If YESAB is not comfortable with any one of these precedents being set, I ask that YESAB rescind the Evaluation Report and Recommendation for 2021-0115, the Faro Generating Station Capacity Expansion Project.

I realize that this is a big ask, but it seemed to make sense for me to ask before considering pursuing further legal action. Or maybe following YESAA is optional?

The Department of Environment's response to YEC's initial project proposal back on September 23, 2020 is a nice summary of the project:

"Specifically, the Faro generating station underwent a YESAA assessment in 2014. In the assessment, FD1 and FD7 were assessed with production capacities of 5.15MW and 3MW for a total of 8.15MW. Currently, FD1 and FD7 have been derated to 2.4MW and 2.8MW however, with the addition of YM20-22 (5.4MW) and the addition of the YM23-25(5.4MW) as emergency backup, this brings the station capacity to a total of 16MW. This is 7.85MW greater than the capacity that was previously assessed in 2014. As the modification of production capacity is greater than 50kW, this project will need to proceed through YESAB before we can issue any permit amendments. Please let me know if you would like to discuss this further." And then things got strange.

The email with the above statement from the regulator can be found on page 4 of the document linked here:
[https://yukonutilitiesboard.yk.ca/pdf/YEC_2021_GRA/NY-YEC-1-8\(a\)_Attachment_1_REVISED_part_1.pdf](https://yukonutilitiesboard.yk.ca/pdf/YEC_2021_GRA/NY-YEC-1-8(a)_Attachment_1_REVISED_part_1.pdf)

And at the top of this same page is the email YEC sent a day later asking the Department of Environment to ignore the 2014 YESAB assessment and to look at this as two smaller projects.

A link to an explanation of the the tricks used to get around the EC screening using time travel and fractional fish - or something like that:

<https://www.yukon-news.com/opinion/this-weeks-mailbox-yesaa-and-the-popes-apology/>

And a Direct link to the Evaluation Report itself:

<https://yesabregistry.ca/api/uploads/1a9e2850-7316-473d-976b-ec169b0ae81c>

And below, a long email chain in which the Watson Lake office discusses the challenges of sending email during covid, while repeatedly ignoring other questions, including how a 7.35MW increase without an Executive Committee screening is supported under YESAA. The emailing during covid issue comes up because the YESAB Watson Lake office has traditionally informed the Town of Faro of relevant assessments, and the town has informed the local residents. This was the first time in at least three years that the YESAB Watson Lake office did not inform the Town of Faro of a relevant assessment. While I am not sure how covid made sending an email more challenging, the result is that the opportunity for public participation was clearly compromised. Yet another reason that this assessment should not be considered valid.

It started when the Department of Environment allowed a single project to be assessed as two projects and ignored the most recent YESAB assessment for the project. The result is a pass for a project that should have required an Executive Committee screening before being undertaken.

Thanks to all for your time and consideration of this issue,

-Nathaniel Yee

And on March 10, I emailed one more question to add to these three, pointing out that in 2019, the YAAQS had been updated and that the 10.6 MW configuration of FD1 + FD7 + 3 rentals did not meet the 2019 YAAQS standards. By using the superseded 2011 Decision Document in 2020, YEC was able to bypass current emissions standards. One of many reasons that superseded documents cannot be accepted.

The following two pages are the question I sent, showing changes to the YAAQS and asking if ignoring environmental regulation is acceptable. Predictably, YESAB also failed to answer this question in the May 17 reply.

I have one more question to add to the three that I submitted via email on March 3, 2023 concerning the expansion of the Faro generating station.

Like my other three questions, this is directed to both YESAB and the Department of Environment, as both had to give approvals in the process.

As I am sure the Department of Environment and YESAB are aware, environmental standards do change over the years.

This is yet another reason that superseded documents and assessments cannot be used to authorize new projects.

Please consider the following chronology of changes to the maximum acceptable concentrations of nitrogen dioxide (NO₂) according to the Yukon Ambient Air Quality Standards (YAAQS), shown in relation to changes at the Faro Generating Station (FGS).

Looking specifically at nitrogen dioxide (NO₂) 1-hour average, expressed in micrograms per cubic meter, ug/m³.

Year:	Maximum NO ₂ 1-Hr average from YAAQS	Faro Generating Station Permitted Capacity	Modelling predicted NO ₂ Concentrations from the FGS
2011:	401 µg/ m ³ ⁽¹⁾	10.6MW, from 2011 YESAB.	
2014:	401 µg/ m ³ ⁽¹⁾	8.15MW, from 2014 YESAB.	
2019:	113 µg/m ³ ⁽²⁾		
2020:	113 µg/m ³ ⁽²⁾	Increase to 10.6MW	160.3 µg/ m ³ ⁽³⁾
2020: ⁽⁴⁾	113 µg/ m ³ ⁽²⁾	Increase to 15.5MW	243.2 µg/ m ³ ⁽³⁾
2025:	79 µg/m ³ ⁽²⁾		

“In the case of Faro, the 10.6 MW of capacity applied for in 2020 had been assessed in 2008 and 2011. The project was allowed to proceed based on those assessments.” ⁽⁵⁾

In 2008 there was no standard for NO₂ that I am aware of, as YAAQS was adopted in 2010. In 2011 the standard was 401 µg/ m³. By the time 2020 arrived and the Department of Environment approved applying the 2011 assessment to YEC’s new rental generators, the standard had been reduced to 113 µg/m³. At 160.3 µg/ m³, the FGS expansion to 10.6MW would not meet the applicable standards of 2020. **Can approvals for projects initiated in 2020 ignore current environmental standards and use standards from 2011 instead?**

This would set yet another interesting precedent. Changes in environmental standards can be bypassed by citing superseded documents where standards were more lenient or did not exist. Is this the end of environmental regulation?

Q4: Do the Department of Environment and YESAB support using superseded documents to avoid compliance with current environmental standards?

I think we can all agree that 2020 was nothing like 2011. The scope of the 2011 YESAB assessment was three years, and was not applicable in 2020. Much has changed. The assessed socio-economic and environmental impacts of a project depend on what standards are applicable at the time the project is undertaken. The 2020 expansion should not have been allowed to proceed based on the 2008 and 2011 assessments. Energy usage was different, population levels were different, and as evidenced here, environmental standards were different.

I submit this question to be added to my previous three and ask that YESAB rescind the Evaluation Report and Recommendation for 2021-0115, and also request that the Department of Environment revoke approval of YEC's 2020 expansion of the FGS to 10.6 MW which was based on YESAB 2011-0246 and 2008-0230 while ignoring YESAB 2014-0119 and YAAQS.

“...if I was told I had to remove those units, I'd send them back to the supplier and I wouldn't pay for them. So I would say the financial risk is relatively low in that respect.”⁽⁶⁾

- Ed Mollard, VP Finance, CFO of YEC in sworn testimony on September 27, 2021, when asked about the financial risk of installing the rental generators in Faro before YESAB 2021-0115 was completed.

Thank you again for your time and consideration in these issues,

-Nathaniel Yee

Notes:

⁽¹⁾ Taken from YESAB 2011-0246, which lists the standard as 213ppbv. Converting this to $\mu\text{g}/\text{m}^3$ at standard temperature and pressure yields $401\mu\text{g}/\text{m}^3$.

⁽²⁾ From “Yukon Ambient Air Quality Standards” on Yukon.ca

⁽³⁾ From YESAB 2021-0115

⁽⁴⁾ The capacity increase in 2020 was the addition of 7 “temporary” rental diesel units in 2020, however the project was assessed as two separate projects to avoid YESAA requirements that would otherwise apply. The increase to 10.6MW was covered by using the superseded 2011 YESAB, and the rest by an “after the fact” partial YESAB in 2021.

⁽⁵⁾ From a letter I received from the Department of Environment dated May 25, 2022 in response to my asking about YEC being allowed to use the superseded 2011 assessment for a project in 2020. The full letter can be provided on request.

⁽⁶⁾ YEC 2021 General Rate Application hearings transcript, September 27, 2021. <https://yukonutilitiesboard.yk.ca/proceedings/>

- Attachment J: YESAB's failure to reply to just about everything I had asked:

YESAB
Yukon Environmental and
Socio-economic Assessment Board

May 17, 2023

Nathaniel Yee
Via email: travelslowly@gmail.com

Dear Mr. Yee,

I am writing in response to your email dated March 3, 2023.

I will not reiterate all the points made by Yukon Environmental and Socio-economic Assessment Board (YESAB) staff in their previous email correspondence with you—specifically, those dated December 2, 2021, December 23, 2021, January 6, 2022, January 20, 2022 and February 11, 2022. As an organization, we stand by the content of those emails, and you can refer to them for further clarification.

I would like to take the opportunity to explain, at a high level, the respective responsibilities for: (1) determining the level of assessment required; (2) determining whether a decision document is in place to allow a project authorization to be issued; and (3) enforcing the terms and conditions of a project authorization.

1. If a project proposal is submitted for assessment, it is YESAB's responsibility to determine the level of assessment required.
2. It is the responsibility of the applicable regulatory agency issuing a project authorization to ensure a decision document is in place that allows the project to be undertaken (pursuant to YESAA s.83(1)).
3. It is the responsibility of the applicable enforcement agency to enforce compliance with the terms and conditions of project authorizations.

YESAB has no enforcement powers under the *Yukon Environmental and Socio-economic Assessment Act* (YESAA) and cannot require nor compel a proponent to submit a project proposal for assessment. Rather, as set out above, YESAB's responsibility and related authorities are limited to determining the level of assessment required for a proposed project.

We cannot speak for the applicable regulatory and enforcement agencies.

Yukon Environmental and Socio-economic Assessment Board
Suite 200-309 Strickland Street
Whitehorse, YT Y1A 2J9
Toll Free: 1-866-322-4040 Tel: 867-668-6420 Fax: 867-668-6425
E-mail: yesab@yesab.ca Website: www.yesab.ca

Page 1 of 2

The following points are relevant in explaining how we determine the required level of assessment:

- YESAB is not enabled by YESAA and its regulations to re-assess projects that have already undergone assessment under YESAA.
- Unless a request is made under s.95 of YESAA, YESAB is not enabled by the legislation to assess projects or activities that are already authorized. Already-authorized projects are considered "existing projects".
- The level of assessment required under YESAA is determined by examining the activities of a proposed project and applying s.47(2), and the *Assessable Activities, Exceptions and Executive Committee Projects Regulations (Regulations)*. The level of assessment required is based solely on the activity thresholds listed in the *Regulations*. YESAB does not have the discretion, or statutory authority, to determine the level of assessment, contrary to the thresholds and requirements set out in the *Regulations*.

In this case, based on the information submitted as part of the assessment for project #2021-0115, the existing project was authorized to generate 10.6 MW. The proposed project was to increase the authorized generating capacity to 15.5 MW—an increase of 4.9 MW. Accordingly, the proposed project included an activity listed in column 1 of schedule 1 of the *Regulations* and not listed in column 2 as excepted. The proponent proposed to undertake activities listed in Part 4, item 2: *Construction, operation, modification, decommissioning, or abandonment, or other activity in relation to, b) a fossil fuel-fired electrical generation station*. The proposed project did not satisfy any of the triggers set out in schedule 3, and thus did not trigger an Executive Committee screening.

Finally, I will reiterate what was communicated to you previously in the above-noted correspondence: that YESAB's standard procedures for notifying the public and assessment participants about the assessment process for a proposed project were followed in the case of project #2021-0115.

I hope this information is helpful.

Sincerely,



Lauren Haney
Chair

cc: Kim Winnicky, YESAB Executive Director

• Attachment K: Asking the Department of Environment about project splitting and superseded documents.

1) c) and d) and 2) a) are most relevant.

Nathaniel Yee PO Box 89
Faro, YT Y0B1K0
travelslowly@gmail.com

8-May, 2023

Bryna Cable and Paul Inglis for Hon. Nils Clarke, Department of Environment.

re: YAAQS, Project Splitting, YESAA

1) In the previous reply, the Department of Environment provided the following answers:

No, the Department of Environment and YESAB does not support using superseded documents to avoid compliance with current environmental standards.

And

The Department of Environment stands by the process to date and reiterates (from the Department of Environment's May 25, 2022 letter to you) that in the case of Faro, the 10.6 MW of capacity applied for in 2020 had been assessed in 2008 and 2011. The project was allowed to proceed based on those assessments. We understand your concern that the 2021 assessment for Faro was not completed by the YESAB Executive Committee. However, the assessment undertaken by the Designated Office was appropriate for the project as proposed and the assessment findings remain valid.

There is a contradiction here. The 10.6MW capacity did not meet 2020 standards – and was approved using superseded 2008 and 2011 documents. Looking at the maximum NO₂ 1-Hr average:

2008: No standards

2011: 401 µg/ m³ (Standard when Faro last had 10.6MW capacity.)

2014: " (Most recent YESAB before the 2020. 8.15MW capacity.)

2019: 113 µg/m³ (standard reduced in YAAQS)

And in 2020, the increase to 10.6MW was approved using superseded 2008 and 2011 documents. This allowed 160.3 µg/ m³, or 142% of the current YAAQS.

a) Was the Department of Environment aware that NO₂ standards had changed and that the YAAQS had been updated since the 2008 and 2011 assessments?

b) Did the Department of Environment review the 2008 and 2011 assessments in relation to updated environmental standards or other any other changes since 2011 before approving the project?

c) Why did the Department of Environment allow the project to proceed based on superseded 2008 and 2011 documents, given that the proposed project was not in compliance with current environmental standards?

d) If the Department of Environment “*does not support using superseded documents to avoid compliance with current environmental standards*”, will the 10.6MW authorization based on superseded documents and ignoring YAAQS be rescinded to correct the error?

2) A related question that I sent a couple of months ago to the Department of Environment was about project splitting. The additional rental generators in Faro in 2020 were presented to the public and initially to the Regulator as one project. It was undertaken as one project.

However, it was split into two projects for on paper for regulatory purposes only. Part one was the increase to 10.6MW using superseded documents, and part two was a YESAB assessment for 4.9MW well after the project was in operation. This allowed YEC to avoid an Executive Committee screening while adding 7.35MW of capacity since the most recent 2014 YESAB assessment.

- a) Does the Department of Environment support project splitting at the request of a proponent as happened with this project?
- b) Is a YESAB assessment required before a project is undertaken, or can it be done later as it was with this project?

3) And relating to the proposed 2023 modifications, I have previously asked the following:

Where in YESAA is the decision body given authority to consider each modification on a “case-by-case basis” now that the specific authority to do this has been repealed? (Old 49.1 – repealed 2017)

As the Department of Environment has not pointed to where this is now authorized in YESAA, I understand that there is no longer specific authorization in YESAA to do this. No question here, unless you have a relevant YESAA citation that I have missed.

Thanks again for your time and consideration,
-Nathaniel Yee

• **Attachment L: Dept of Env Reply. No answers to inquiry about project splitting and superseded documents.**

Despite claims otherwise, this is also not addressed in YESAB 2021-0115.



**Department of Environment
PO Box 2703, Whitehorse, Yukon Y1A 2C6**

July 10, 2023

Nathaniel Yee
Via email: travelslowly@gmail.com

Dear Nathaniel Yee:

RE: YESAA and YEC's 2023 Proposed Modifications to the Faro Generating Station

I have reviewed your May 8, 2023 email and letter to the Department of Environment (ENV) regarding Yukon Energy Corporation's (YEC) Faro Generating Station. As you are aware Environment is responsible for Air Emission Permit No. 60-010 that was amended following the environmental and socio-economic assessment of YEC's increased operational capacity (Project number 2021-0115).

The concerns you have raised about the application of air quality standards have been addressed in the 2021-0115 assessment, where both the current and 2025 Yukon Ambient Air Quality Standards were taken into consideration under the characterization of project effects. Concerning your request for plans for the Faro station, the Department of Environment has not received any plans from YEC, and therefore has no documents to pass along.

The Department of Environment understands YEC is adjusting the configuration of generators onsite by moving them approximately 50m from their current location. Considering YEC is operating within the terms and conditions of their air emissions permit, an operational need to move generators within the site boundary does not necessitate a plan to be submitted for approval to be obtained. Recent air emissions permit inspections have confirmed YEC is operating in compliance within their air emissions permit.

Sincerely,

A handwritten signature in black ink that reads "Bryna Cable".

Bryna Cable
Director of Environmental Protection and Assessment Branch



Table 1 Yukon Energy Generation Inventory

LOCATION	UNIT NO.	PRIME MOVER TYPE	PRIME MOVER MANUF.	PRIME MOVER MODEL	SERIAL NO.	NAME PLATE CAPACITY	MCR RATING (KW)	RPM	RAD TYPE	GEN. MANUF.	GEN. MODEL	GEN. SERIAL NO.	GEN. RATING (KVA)	GEN. VOLTAGE (V)	EXCITER TYPE	IN-SERVICE DATE	PLANNED RETIREMENT DATE	GROSS FUEL EFF (KWh/Unit)	
Aishihik	AH1	hydro	Dom Eng.	Francis	1014	15,600	15,000	720	N/A	C.G.E.	AT1	52L439	1560	13800	Brush	1975			
	AH2	hydro	Dom Eng.	Francis	1015	15,600	15,000	720	N/A	C.G.E.	AT1	52SL440	1560	13800	Brush	1975			
							30,000												
Faro	FD1	diesel	Mirreets	KV16	64511	5,150	5,150	514	Remole	Brush		549201	6000	12000/6900	Brushless	1970			
	FD3	diesel	Caterpillar	3516	7320247	1,000	850	1200	Remole	Kato	Exciter		1288	4160	Brushless	1989	2019	3.7	
	FD5	diesel	Caterpillar	3516	25201988	1,400	1,025	1800	Skid	Kato	Exciter		1000	4160	Brushless	1990	2020	3.7	
	FD7	diesel	Caterpillar	3512	9RC0071	3,000	2,400	900	Remole								1992	2027	3.9
Dawson	DD1	diesel	Caterpillar	3512	67200715	800	720	1200	Remole	Kato	A245800002	96650	1000	2400/4160	Brushless		2018		3.7
	DD2	diesel	Caterpillar	3516	73200216	1,000	920	1200	Remole	Kato	A242520000	94740	1250	4160	Brushless	1987	2017	3.7	
	DD3	diesel	Caterpillar	3516 1A	73200422	1,000	920	1200	Remole	Kato	A252100001	98297	1288	4160	Brushless	1990	2020	3.7	
	DD4	diesel	Caterpillar	D399	3581280	700	400	1200	Remole	Tamper		363181303	1000	4160	Brushless	1975	2005	3.1	
	DD5	diesel	Caterpillar	3506	8RB00293	1,500	1,400	900	Remole	Ideal	type SAB	328778	1875	4160	Brushless	1996	2031	3.9	
Mayo	MD1	diesel	Caterpillar	3516	7320307	1,000	850	1200	Remole	Kato	Exciter		350	4160	Brushless	1989	2019	3.7	
	MD2	diesel	Caterpillar	3516	7320284	1,000	850	1200	Remole	Kato	Exciter		350	600	Brushless	1989	2019	3.7	
	MD3	diesel	Cummins	KTA	31107828	330	0	1800	Skid	BBC	527	C261389980	2550	6900	Brushless	1981	2011	3.0	
	MH1	hydro	Dom Eng.	Francis	696	2,620	2,600	450	N/A	G.E.	78796	663667	2550	6900	Brush	1957	none		
	MH2	hydro	Dom Eng.	Francis	748	2,840	2,800	450	N/A	G.E.	72025	559905	2550	6900	Brush	1951	none		
Whitehorse	WH1	hydro	K.M.W.	Kaplan	2754	5,800	5,800	300	N/A	West.		459955	5800	6900	Brush	1958	none		
	WH2	hydro	K.M.W.	Kaplan	2753	5,800	5,800	300	N/A	West.		459954	5800	6900	Brush	1958	none		
	WH3	hydro	C.A.C.	Propeller	1234	8,400	8,400	200	N/A	C.G.E.		848297	8400	6900	Brush	1969	none		
	WH4	hydro	Dom Eng.	Propeller	1070	20,000	20,000	150	N/A	C.G.E.		0525L0509	2360	6900	Brush	1984	none		
	WD1	diesel	Mirreets	KV12	65371	3,920	3,000	514	H/X	Brush		506411	4250	6900	Brushless	1968	2011	3.7	
	WD2	diesel	Mirreets	KV16	63381	5,150	4,200	514	H/X	Brush		506421	6000	6900	Brushless	1968	2009	3.7	
	WD3	diesel	Mirreets	KV16	64441	5,150	4,200	514	H/X	Brush		548561	6000	6900	Brushless	1970	2007	3.7	
	WD4	diesel	EMD	20C	74H11151	2,500	2,250	900	Remole	EMD	A20T 24	74H11151	3000	4160	Brush	1975	2025	3.6	
	WD5	diesel	EMD	20C	73J11044	2,500	2,250	900	Remole	EMD	A20T 24	73J11044	3000	4160	Brush	1975	2025	3.6	
	WD6	diesel	EMD	20C	90011025	2,700	2,500	900	Remole	EMD	PMG Exciter	174184911	3125	4160	Brushless	1990	2025	3.7	
WD7	diesel	Caterpillar	3612	9RC0108	3,300	2,800	900	Remole	Kato	A247680002	98548	4125	4160	Brushless	1991	2026	3.9		
Haeckel Hill	WW1	wind	Bonus	MARK III			810									1993	2013		
	WW2	wind	Vestas				660									2000	2020		
Mobile Diesels	YM1	diesel	Caterpillar	3516	25201987	1,400	1,300	1800	Skid	Kato	Exciter		4160	Brushless	1990	2015	3.7		
	YM2	diesel	J Deere		RG6081A073 016	150	150	1800	Skid	Stamford		W/08945	150	347/600		1999	2024		
Total Co 4 Capacity							114,345												

• Attachment N: Stacking order and Capacities 2011 from YESAB 2011-0241 Evaluation Report
p.9 (pdf p.12) with subtotaled data below.

Whitehorse Designated Office Evaluation Report

Yukon Energy Air Emissions Permit Renewal - Whitehorse – 2011-0241

Stacking Order	Unit No.	Location	Type	Rating (MW)	In-Service Date
1	WD6	WHITEHORSE	EMD	2.25	1990
2	WD4	WHITEHORSE	EMD	2.25	1975
3	WD5	WHITEHORSE	EMD	2.25	1975
4	WD7	WHITEHORSE	Caterpillar	2.8	1991
5	FD7	FARO	Caterpillar	2.4	1992
6	FD5	FARO	Caterpillar	1.025	1990
7	FD3	FARO	Caterpillar	0.85	1989
8	DD2	DAWSON	Caterpillar	0.92	1987
9	DD3	DAWSON	Caterpillar	0.92	1990
10	DD1	DAWSON	Caterpillar	0.72	1988
11	DD5	DAWSON	Caterpillar	1.4	1996
12	FD1	FARO	Mirrlees	5.15	1970
13	YM1	DAWSON	Caterpillar	1.3	1990
14	WD2	WHITEHORSE	Mirrlees	4.2	1968
15	WD3	WHITEHORSE	Mirrlees	4.2	1970
16	MD1	MAYO	Caterpillar	0.85	1989
17	MD2	MAYO	Caterpillar	0.85	1989
18	WD1	WHITEHORSE	Mirrlees	3.0	1968

Table 2: YEC Diesel Generation Units by stacking order¹⁵

Data extracted from above and sorted and subtotaled by location.

Stacking

Order	Unit No	Location	Type	Rating (MW)	In-Service Date
12	FD1	FARO	Mirrlees	5.15	1970
7	FD3	FARO	Caterpillar	0.85	1989
6	FD5	FARO	Caterpillar	1.025	1990
5	FD7	FARO	Caterpillar	2.4	1992

Faro Total: 9.425 MW

18	WD1	WHITEHORSE	Mirrlees	3	1968	Replaced w/ LNG
14	WD2	WHITEHORSE	Mirrlees	4.2	1968	Replaced w/ LNG
15	WD3	WHITEHORSE	Mirrlees	4.2	1970	
2	WD4	WHITEHORSE	EMD	2.25	1975	
3	WD5	WHITEHORSE	EMD	2.25	1975	
1	WD6	WHITEHORSE	EMD	2.25	1990	
4	WD7	WHITEHORSE	Caterpillar	2.8	1991	

Whitehorse Total: 13.75 MW (w/o WD1, WD2)

13.75 MW is the capacity of the five generators listed on the current emissions permit.
WD3 has since been retired leaving 9.55 MW of actual installed capacity.

• **Attachment O: Four emails between YEC and ENV. False information about capacities, splitting of project using superseded documents.**

All from NY-YEC-1-8(a) Attachment 1 from the 2021 GRA. Full email chain is available in my aids to cross examination from the 2021 GRA.

1) False information about capacities and deratings. All Faro generators were derated from nameplate capacity in 2008 and 2011, not “over the last few years”.

From: [Travis Ritchie](#)
To: ["Elizabeth.Barker@gov.yk.ca"](#)
Subject: RE: AEP 60-010 Amendment Application
Date: September 21, 2020 5:19:01 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)

Hello Elizabeth,

Thanks for your email.

The current capacities (or current rated output) of FD1 and FD7 are as you have them in your table (2.4 MW and 2.8 MW, respectively). They have both had their outputs de-rated over the last few years from their name plate capacities of 5.15 MW and 3.2 MW, respectively. There is likely little difference between the name plate capacity and output capacity of the mobile diesels (YM20 - YM25) as they are brand new units.

Please let me know if you have any further questions or would like to review anything.

Regards,

Travis

2) Asking to split the project and use superseded 2008 and 2011 Decision Documents, ignoring the 2014 assessment. Claiming that deratings happened subsequent to the 2011 assessment, while they actually happened before the 2011 assessment.

From: [Travis Ritchie](#)
To: ["Elizabeth.Barker@gov.yk.ca"](#)
Subject: RE: AEP 60-010 Amendment
Date: September 24, 2020 10:06:06 AM
Importance: High

Hi Elizabeth,

Thanks for your reply.

Given that the facility was assessed favourably under YESAA in both 2008 and 2011, prior to relocating units FD3 (1 MW) and FD5 (1.4 MW) and there have been no other changes to the facility since 2008, I was anticipating that either Decision Document 2008.0230 or 2011.0246 were technically still valid for the purposes of granting an approval to at least reinstall both the relocated and de-rated generating capacity at the site. Those were the only changes to the facility during its last assessment, so the activities remain the same across all assessments. I understand the need to assess the additional capacity (beyond what has been assessed historically) before it can be permitted, but I would ask for approval to reinstall the previously relocated and de-rated capacity pursuant to the 2008/2011 assessment findings and related decision documents.

If you need, I can resubmit the amendment application for reinstallation of only the previously assessed capacity, removing reference to the 3 additional units (YM23-YM25). YEC can then work on getting a YESAA assessment completed for the additional capacity, which could be permitted afterward.

Does that sound reasonable? If it's helpful to speak on the phone please let me know and I will call you at a convenient time.

Thanks again.

Regards,

Travis

3) ENV agreeing to “have a quick look through the 2008 and 2011 reports” to see if those assessments and Decision Documents can be used instead of the standard applicable from the most recent 2014 assessment.

From: Elizabeth.Barker@gov.yk.ca [mailto:Elizabeth.Barker@gov.yk.ca]

Sent: September 28, 2020 12:58 PM

To: Travis Ritchie <Travis.Ritchie@yec.yk.ca>

Subject: RE: AEP 60-010 Amendment

Hi Travis,

My apologies for the late reply, I only reviewed the 2014 Faro YESAA assessment. Let me have a quick look through the 2008 and 2011 reports and get back to you. 4)

From our end, it will definitely be easier if you to resubmit the amendment application and exclude YM23-YM25 as you have mentioned below.

I fly out of the territory tomorrow and will be away for one week but I will get back to you once I return.

Thanks for your patience,

Liz

Relying on YEC’s false information about deratings, ENV mistakenly approves using superseded documents that allow YEC to bypass 2020 emissions standards for the change to 10.6 MW, and to split the project into two pieces to avoid an Executive Committee screening.

From: Elizabeth.Barker@gov.yk.ca
To: Travis.Ritchie
Subject: RE: AEP 60-010 Amendment
Date: October 13, 2020 4:05:52 PM

Good Afternoon Travis,

We have determined that the information provided in YEC’s previous Faro station YESAA assessments (2008-0230 and 2011-0246) is still valid for the proposed 2020 amendment of reinstalling capacity of approximately 5.65MW at the Faro generating station. YEC has authorization to reinstall previously relocated/de-rated capacity of up to 10.6MW, cumulative station capacity, without proceeding through the YESAA assessment process. As discussed, any additional capacity increase that will bring the Faro station’s cumulative capacity above 10.6MW will need to proceed through the YESAA assessment process before being considered.

As this amendment doesn’t change the content of your current Air Emissions Permit 60-010, we will not be issuing an amended permit and you may continue to use permit 60-010 as is .

Cheers,

Liz

Elizabeth Barker
Environmental Protection Analyst
Department of Environment
Government of Yukon
(867) 667-5456

- **Attachment P: Slides from YEC's March 27, 2023 presentation concerning Whitehorse Thermal Permitting.**

p.69-70 from

https://yukonenergy.ca/media/site_documents/Whitehorse_Thermal_Permitting_What_We_Heard_Report.pdf

Our existing Whitehorse permit



13.2
megawatts
from liquified
natural gas
generators

16
megawatts
from diesel generators

12
megawatts
from diesel generators
that can be used
during emergencies

19

Our existing permit *continued*



- Existing permit will expire December 31, 2024
- Renewal will extend the permit for another 10 years
- Not asking to add more thermal capacity

20

• **Attachment Q: Questions on Yukon Energy’s 2023 proposed modifications to the FGS.**
My initial questions in bold text, YEC’s replies in standard text and my additional/followup questions in red, submitted 27-Mar, 2023. YEC replied that they were working on answers. I’m still waiting.

1) What are the details of the proposed FD8 and FD9? Please provide full specifications from the manufacturer.

Performance Number: DM8707

Change Level: 07

SALES MODEL:	C175-16	COMBUSTION:	DIRECT INJECTION
BRAND:	CAT	ENGINE SPEED (RPM):	1,800
MACHINE SALES MODEL:		HERTZ:	60
ENGINE POWER (BKW):	2,737.0	ASPIRATION:	TA
GEN POWER W/O FAN (EKW):	2,600.0	AFTERCOOLER TYPE:	SCAC
COMPRESSION RATIO:	15.3	AFTERCOOLER CIRCUIT TYPE:	JW+OC+1AC, 2AC
RATING LEVEL:	CONTINUOUS	AFTERCOOLER TEMP (C):	48
PUMP QUANTITY:	2	JACKET WATER TEMP (C):	99
FUEL TYPE:	DIESEL	TURBO CONFIGURATION:	PARALLEL
MANIFOLD TYPE:	DRY	TURBO QUANTITY:	4
GOVERNOR TYPE:	ADEM4	TURBOCHARGER MODEL:	GTB6251BN-48T-1.38
ELECTRONICS TYPE:	ADEM4	CERTIFICATION YEAR:	2008
CAMSHAFT TYPE:	STANDARD	CRANKCASE BLOWBY RATE (M3/HR):	58.0
IGNITION TYPE:	CI	FUEL RATE (RATED RPM) NO LOAD (L/HR):	58.7
INJECTOR TYPE:	CR	PISTON SPD @ RATED ENG SPD (M/SEC):	13.2
FUEL INJECTOR:	4439455		
REF EXH STACK DIAMETER (MM):	356		

INDUSTRY	SUBINDUSTRY	APPLICATION
ELECTRIC POWER	STANDARD	PACKAGED GENSET
OIL AND GAS	LAND PRODUCTION	PACKAGED GENSET

1) The DM8707-07 is listed as a Tier 2 unit. I had heard that the new generators would be Tier 4? Please confirm. And if this is not the correct generator, please provide a link to the specifications on the CAT site.

2) Please provide sound modelling reports and methodologies for the new configuration. The results of the sound modelling report were referenced at the meeting on January 24, 2023. Seeing the full report would be beneficial.

The full report is not yet available. The results of the sound modelling were shared ahead of the full report so they could be presented at the January meeting in Faro. Results from the sound modelling can be found in Appendix A, Table 1.

Modelling is based on the ISO 9613-2 standard which assumes moderate downwind conditions from all noise sources to all receptors simultaneously. The wind speed is approximately 1 m/s to 5 m/s measured at a height of 3m to 11m above ground.

3) Why was sound monitoring conducted at +5c to -4c? These are not the conditions under which the generators are typically run.

This modelling was based on the ISO (International Organization for Standardization) 9613-2 international standard.

3) I was asking about sound **monitoring** conditions. ISO 9613-2 deals with predicting noise levels, not measuring them. **Again, why was monitoring not conducted at conditions under which the generators are typically run?**

4) Why was modelling done at 0c and 70% humidity? Again, these are not the conditions under which the generators are typically run.

This modelling was based on the ISO (International Organization for Standardization) 9613-2 international standard.

- 4) a) I don't see anything in 9613-2 specifying these atmospheric conditions. Please explain where this can be found?
- b) I believe ISO 9613-1 provides attenuation coefficients for more relevant atmospheric conditions. Why is ISO 9613-1 not being used?
- c) In your application of 9613-2, are you using C_{met} in the calculations? If not, why not – and if so, what are you using for C_0 and how was it derived?
- d) Why again was modelling done for these conditions? I am not seeing it specified in ISO 9613-2.
- e) Please provide modelling at relevant atmospheric conditions.

5) YEC has proposed the following modifications to the FGS:

- Decommissioning FD1 – Mirrlees KV16 Generator
- Adding two new “permanent” generators, FD8 and FD9.
- Moving 3 “temporary” rental generators and infrastructure to a different location in the facility.
- Removing 2 “temporary” rental generators.
- Possible addition of sound barriers around FD7 and/or two of the rentals YEC has stated that these modifications will change sound emissions from the FGS.

a) Is this a modification to the Faro Generating Station?

Yes. Pursuant to the existing air emissions permit some of the planned modifications at the site require approval of the regulator (Government of Yukon's Department of Environment), but no assessment under YESAA is required, as explained below.

b) Will there be a YESAB assessment for this modification?

No. A contemporary YESAA Decision Document already exists and allows the regulator to authorize modifications to the facility that are covered by the scope of that previous assessment and Decision Document.

5) b) Where is this allowed in YESAA? I think that the old section 49.1 concerning determination of significant change did allow this, but that was rescinded in 2017. Is there anything specified in YESAA that still allows this?

c) If YEC is not planning to have YESAB assessment, please explain why not, and if/how this is supported specifically by YESAA Schedule 1 Part 4 Item 2(b) and YESAA section (2) Purposes of Act (b) and (h).

The basic tests for whether an assessment is required under YESAA include:

- Is the activity proposed within the Yukon or one that could affect the Yukon?
- Is some sort of authorization required?
- Is there an applicable activity trigger in the regulations?

In the context of a project that has been previously assessed under YESAA, a regulatory authority would determine whether the project needs a NEW Decision Document to issue amendments to an existing authorization.

In this case, while the modification of a fossil fuel-fired generating station is an assessable activity (under Sched. 1, Part 4, Item 2 (b)) of the YESAA Regulations, a contemporary and applicable Decision Document already exists for this activity. Therefore, the Government of Yukon is not required to get a new Decision Document to authorize the modification (which is to replace previously assessed capacity with cleaner/quieter units and to move the location of some equipment on site). There are no new potential effects that have not already been assessed. If Yukon Energy were proposing something that was not previously assessed or was requesting an extension to the existing permit expiry date, then a new Decision Document would be required, which would necessitate a new assessment. In other words, none of the proposed modifications discussed during Yukon Energy's presentation create different potential effects than were previously assessed, and for which there is a Decision Document that allows the regulatory authority to authorize minor changes.

The purposes of YESAA are met in this instance, as the potential effects of these modifications are within the realm of those examined in the recent YESAA assessment for the project (reference to YESAA Section 5(2)(b)). The public also had an opportunity to participate in that assessment (reference to YESAA Section 5(2)(h)). Furthermore, the ability for Decision Bodies and their regulatory agencies to rely on past and applicable Decision Documents is a way to ensure that the use of YESAA avoids unnecessary duplication.

5) c) The answer claims that the modification is
“to replace previously assessed capacity with cleaner/quieter units and to move the location of some equipment on site”
and also that
“none of the proposed modifications discussed during Yukon Energy’s presentation create different potential effects than were previously assessed...”

Q1: This seems contradictory. Please explain how it can be claimed to cleaner and quieter and also have no effect?

“and for which there is a Decision Document that allows the regulatory authority to authorize minor changes. “

Replacing FD1 with FD8 and FD9 is changing the source of 34% of the total capacity. And with moving three of the rentals to different locations, a total of 68% of the capacity is affected.

Q2: How is changing 68% of the total capacity considered a minor change?

Questions concerning Appendix A:

A1) Past Operating Configuration is listed as FD1, FD7 and 3 rental units. Has this particular configuration ever actually existed? When?

A2) Please include results for Current Operating Configuration FD1, FD7 + 6 rentals in any future tables of results.

A3) Please also include just FD1 and FD7 alone, as this was the configuration that existed from 2014 to 2020.

A4) One of the presentation slides said 20-30% sound reduction. Please provide the calculations for this. It is unclear what was being compared for this reduction.

A5) The presentation listed

- Nighttime permissible sound level: 43 dBA
- Daytime permissible sound level: 53 dB

Looking at the BC Oil and Gas Commission’s Noise Control Best Practices Guideline, and given the Ambient Nighttime measured sound levels provided, the “Ambient monitoring adjustment A2” should be used. The values given are from Table 1 (the source of the 43dBA) in the guideline and are based on rural ambient noise being 35dBA, while Faro’s was measured to be 25.4dBA. There is no industrial presence in Faro. Please provide updated permissible sound levels including the Ambient Monitoring Adjustment.

A6) Subtracting predicted sound level reductions from proposed operating configuration levels should yield something like the right number for “Current Operating Configuration” FD1, FD7 + 6 rentals. That is, for the current configuration:

R2	R3	R4	R5	R6	R7	
51.3	56.7	52.8	46.3	43.6	46.2	<- Current configuration
43	43	43	43	43	43	<- Nighttime permissible levels not properly adjusted for temperature or low ambient noise.

The current configuration exceeds permissible nighttime levels at all locations, at and two locations during the day. These results would be even worse if monitoring and modelling would have been done at realistic operating conditions, or if the ambient monitoring adjustment would have been factored in. Ok, I guess I see why that’s not included in the table. Please confirm these results.

A7) After Option A’s “improvements”, sound levels will still exceed maximum permissible nighttime levels in three of the six sampled locations.

It is notable that doing modelling at actual operating temperatures, maximum permissible sound levels would be exceeded at four or more of the six locations.

Why should Faro accept sound levels that have been deemed unacceptable in BC?

Even Option B exceeds permissible nighttime levels in two locations, and would be unacceptable in three or four of the six locations if modelling were done at actual winter operating temperatures. **Again, why are we being asked to accept what is not permissible by BC guidelines?**

Appendix A

Table 1: Sound Audit and Modelling Results

Operational Condition	Sound Level, Leq (dBA) ¹					
	R2	R3	R4	R5	R6	R7
	130 Dawson Drive	RCMP Office	146 Kitza Avenue	356 Campbell Street	504 Douglas Drive	502 Ladue Drive
Ambient Nighttime (measured) No Generating Activity	23.6	25.4				
Ambient Daytime (measured) No Generating Activity	35.4	33.9				
Past Operating Configuration (measured) FD1, FD7, 3 Rental Units (10.6 MW)	44.1	53.6	50.5	44.5	41.4	45.4
Proposed Operating Configuration (Option A) FD7, FD8, FD9 and 4 Rentals (3 North and 1 South). Includes FD7 Radiators Acoustic Barrier	45.0	50.3	46.8	39.7	40.1	42.3
Proposed Operating Configuration (Option B) FD7, FD8, FD9 and 4 Rentals (2 North and 2 South). Includes FD7 Radiators and 2 South Rental Units Acoustic Barrier	42.7	49.9	45.3	37.5	39.8	42.4
Predicted sound level reductions between current operating configuration and proposed configuration Option A	-6.3	-6.4	-6.0	-6.6	-3.5	-3.9
Predicted sound level reductions between current operating configuration and proposed configuration Option B	-8.6	-6.8	-7.5	-8.8	-3.8	-3.8

• **Attachment R: My letter to many, attempting to guilt YEC and others into acting in an ethical manner.**

Nathaniel Yee
PO Box 89
Faro, YT Y0B1K0

19-June, 2023

To:
The Hon. John Streicker
The Hon. Nils Clarke
Lisa Wiklund for YEC
Lauren Haney, Energy, Mines and Resources, ex YESAB
Lesley Cabott for YEC Board of Directors

Subject: Yukon Energy: Deceptive practices and false information in Faro, Mayo and Whitehorse.

I am concerned that Yukon Energy seems to have fallen into the habit of providing false and deceptive information to the public if it seems advantageous to the company. A few examples are provided here, and unfortunately I can provide more if you are interested.

I have chosen one example each from Faro, Whitehorse and Mayo where YEC has not been honest in dealings with the public.

Faro:

I recently submitted a few questions to YEC concerning proposed changes to the Faro Generating Station.

A number of the answers that I received were verifiably false.

An easy example is one of my questions about sound propagation:

Q: Why was noise modelling done at 0c and 70% humidity? These are not the conditions under which the generators are typically run.

YEC Answer: This modelling was based on the ISO (International Organization for Standardization) 9613-2 international standard.

Despite the implications of YEC's answer, ISO 9613-2 does NOT specify sound modelling at 0c and 70% humidity. Why would an ISO standard specify a temperature never reached in many parts of the world? There is an attenuation coefficient in the ISO standard for modelling different temperatures. For the rental diesels, -20c would be more reasonable. The generators are not run at 0c.

Typically sound carries further at lower temperatures and I understand that YEC can pretend the generators are quieter by doing sound monitoring and modelling at unrealistically high temperatures. This is deceptive.

Then claiming that this is because of ISO 9613-2 is simply false, and YEC knows this. Intentionally providing false information.

I have subsequently asked YEC to explain how/where ISO 9613-2 specifies 0c and 70% humidity – and again why sound modelling and monitoring are done at unrealistically warm temperatures. Predictably, I have received no response.

It is also notable also that in a presentation in December of 2020, YEC claimed that the BC noise control guideline was 58dB, and that a particular configuration yielded 58dB. In 2023, for the same location, YEC claims that the daytime guideline is 53dB, and now the same configuration conveniently produces only 53.6dB. Convenient, but credible? Which number that YEC has provided is correct? Why?

My followup questions to YEC concerning the supposedly proposed (but actually in process) 2023 modifications to the FGS are available here:

https://drive.google.com/file/d/1JXjulHfZKL15_N0g7IQT2DhQ7xDn_iT2/view?usp=sharing

Whitehorse:

Another example of YEC deception comes from the Whitehorse thermal permitting presentation, where YEC misstated the limits of their existing permit. The slide from the presentation:



Here YEC claims that their current permit allows 16MW of diesel. However, in sworn testimony in front of the Yukon Utilities Board as part of the 2021 GRA, YEC insisted that they were permitted to run up to 14MW of diesel in Whitehorse.⁽¹⁾ This number was reached by rounding up from the actual permitted capacity in of 13.75MW. This was the capacity of WD3-7 according to the Evaluation Report for YESAB 2011-0241. Does 13.75 = 16?

And about that 12MW that can be used during emergencies? That’s a bit deceptive. Sure it’s on the existing permit – as a temporary provision that expired back on March 31, 2022.⁽²⁾ YEC had this permission from 2018 to 2022, and told the Department of Environment in a 2017 application for emergency rental diesel that it that they would have a “more permanent” solution ready by by 2021.⁽³⁾ This temporary permit expired in 2022, and now somehow now it is considered “existing” and expected to become permanent? This capacity has never been subject to a YESAB assessment.

On the next slide YEC says:

- Not asking to add more thermal capacity

And this may be true in a way? YEC is adding 14.25MW – but without asking. That is, adding 2.25MW by claiming 16MW instead instead of the actual 13.75, and then claiming an expired temporary provision for 12MW is still active and existing.

According to YEC testimony in 2021, the existing Whitehorse permit allows for 13.75MW from diesel, and that is all. Now claiming 28MW (16+12) in 2023 is incorrect and deceptive.

References:

⁽¹⁾ Undertaking 29, p. 251

https://yukonutilitiesboard.yk.ca/pdf/YEC_2021_GRA/YEC_undertakings_Oct_5_2021.pdf

And the capacities from YESAB 2011-0241 Recommendation / Evaluation Report p. 12

WD3=4.2MW, WD4-6=2.25MW each and WD7 2.8MW = 13.75MW

<https://yesabregistry.ca/api/uploads/47ae6b8c-2973-446c-be89-3bd61c49f6a3>

⁽²⁾ Part 9 of the permit dated 4-Oct, 2018 currently available here:

https://yukonenergy.ca/media/site_documents/Air_Emissions_Permit_60-010_Amendment_2.pdf

⁽³⁾ Record of Determination of Significant Change, 11-Dec, 2017 p.487

https://yukonutilitiesboard.yk.ca/pdf/YEC_2021_GRA/

[YEC_2021_GRA_consolidated_IRs_March_5_2021.pdf](https://yukonutilitiesboard.yk.ca/pdf/YEC_2021_GRA/YEC_2021_GRA_consolidated_IRs_March_5_2021.pdf)

And then there's Mayo:

The proposal that YEC has submitted to YESAB is for the installation of five rental generators of 1.8MW each, with a total permitted capacity of 4.9MW.

That is, YEC is installing 9MW, but permitting only 4.9MW. Why permit 4.9MW, or 2.72 generators out of 5? An executive committee screening is required at 5MW, and to avoid this, YEC is asking for a permit to run only 2.72 generators. Not sure how it's possible to run 2.72 generators without actually running 3, but...

YEC is claiming that 2 of the 5 generators are "spares" or backups in case 2 of the permitted 2.72 generators fail. Looked at in terms of capacity, of the 9MW total, 4.9MW is to be permitted, and 4.1MW is not.

However, in sworn testimony during the 2021 GRA hearings, YEC argued that in the existing rental diesel installations in Faro and Whitehorse, one spare (and only one) was needed in each location. ⁽⁴⁾

The Yukon Utilities Board did not find this argument compelling and concluded that no spares were needed in either Whitehorse or Faro: "*The Board finds that the two spare units are therefore redundant, given that they essentially provide backup to the 15 diesel rental units which themselves are backup to YEC's system.*"⁽⁵⁾

It is therefore unclear why Mayo needs two spares in a total of five generators, given that YEC claimed to need only one spare each for Faro and Whitehorse – and that the Utilities Board considered even one to be unnecessary.

10% of the rental diesels in Whitehorse are considered "spare".

14% of the rentals in Faro are considered "spare".

40% of the rentals in Mayo are considered "spare".

So... Are the rentals planned for Mayo amazingly unreliable - or is YEC just trying to get around YESAA requirements again?

YEC is installing more than 5MW, and according to YESAA, Mayo should get an Executive Committee screening. Mayo deserves this level of consultation and respect, and YESAA requires it.

But to avoid the complication of a mandated EC consultation, YEC is asking for a permit for 4.9MW or 2.72 generators. Too bad for Mayo.

YEC likes the 4.9MW / 2.72 generators YESAB assessment, regardless of the actual project being undertaken. In Faro, there was also an assessment for 4.9MW, though the capacity actually increased by 7.35MW since the previous assessment. YEC navigated this with the help of the Department of Environment and YESAB by using project splitting and ignoring the YAAQS.

The end result was a project that bypassed YESAA requirements, just as YEC is trying to do in Mayo. A win for Yukon Energy I suppose, but a loss for honesty, ethics, the purpose of YESAA and of course residents of Faro and Mayo.

⁽⁴⁾ P. 303 of the transcript

https://yukonutilitiesboard.yk.ca/pdf/YEC_2021_GRA/YEC2021GRA_28Sept2021.pdf

⁽⁵⁾ P. 27, Item 114, Appendix A to Board Order 2022-03

https://yukonutilitiesboard.yk.ca/pdf/Board_Orders_2020/Appendix_A_to_Board_Order_2022-03.pdf

And now my appeals to you:

To All:

I'm guessing it's tiring trying to pretend that everything is being handled in a proper, honest and ethical manner. And really it's a waste of time. Yours and mine.

Is there anyone who really believes that YEC's 2.72 generator obsession is anything other than a way to avoid EC screening? Does anyone really believe that splitting the Faro project to avoid an EC screening was in compliance with YESAA? Despite my asking many times, YESAB declined to answer this one... Does anyone really believe that ISO 9613-2 specifies that sound modelling be done at 0c and 70% humidity?

I'm tired of asking questions and getting ridiculous and contradictory answers, and I'm guessing you're tired of having to defend things that we all know are untrue.

So where do we go from here?

And now my appeals to a few key players:

To John Streicker:

I see that you have a past as a climate scientist and an engineer. You wouldn't have fallen for YEC's claim that an ISO standard for sound modelling specifies 0c either. I am guessing that at times you have found it offensive when big corporations deceive or lie to get around environmental, socio-economic or ethical boundaries. Incorrectly citing ISO standards? Project splitting? Changing the numbers and the facts to get the result they want? Deceiving and lying to the public? Using superseded documents to avoid environmental regulations? YEC has done all of this. If you are not familiar with these activities, I have documented all of it, using source documents primarily from YEC, with some from YESAB and the Department of Environment. All can be provided on request.

I don't think you went into this job wanting to be responsible for a company that does that sort of thing, but this is where you have ended up. I appeal to your sense of decency to correct these issues.

Please direct YEC to be honest about the permit in Whitehorse.

Please direct YEC to correct the Mayo YESAB application to reflect reality. Yes, that means an EC screening, but doesn't Mayo deserve the consultation specified by YESAA?

Please direct YEC to be honest and ethical, and please help Faro get the proper EC screening we deserved for the 2020 rentals. Can this be done by requesting a panel review?

Also please initiate a YESAB assessment for the modifications to the FGS currently in process. When trying to sell it as an improvement, YEC has said that the current modifications are to "to replace previously assessed capacity with cleaner/quieter units and to move the location of some equipment on site". This while also claiming that "none of the proposed modifications discussed during Yukon Energy's presentation create different potential effects than were previously assessed..." when claiming that no YESAB assessment is needed. Cleaner and quieter, but also no effect? I see it is hard for YEC to keep the stories straight.

We realize that the big companies can run over the little people, but what do you do when you find yourself in charge of that big company? YEC has lied to and been disrespectful to Whitehorse, Mayo and Faro. I understand that it is difficult to change the company's direction and to correct these errors, but I ask that you try. I am working to try to make this happen, and I invite you to join me in this. Doing what's right is not the easiest path, but I hope you find it important enough to pursue.

To Lisa Wiklund:

I realize that you are just the messenger in this case. I don't know you, but I am guessing (hoping) that you're not really excited about lying to the public. Marketing and communications can go a little this direction, but there are (or should be) limits. I realize that in calling out your answers to me as ridiculous – and highlighting the ISO one in particular, I may be putting you in a difficult position. This is not intentional. I don't see any individual as being the problem, nor any individual being the solution. It takes a team to do things right, or to do things wrong. I ask that you help move YEC towards honesty. Not an easy task, but the right thing to do. When YEC does something to deceive the public, like doing sound modelling at the wrong temperatures, I ask that you work on behalf of the public to correct the issue, rather than lying to the public to cover for the deception. YEC is, after all, a public company. Deceiving the public shouldn't be part of the job. I do hope that your employer accepts this.

To Lesley Cabott:

Moving YEC towards being honest to and respectful of the public seems to be a big task, and I hope that The Board will push that direction.

Quoting your code of conduct, “This means that directors and officers must ensure that the corporation complies with all laws and regulations that govern the conduct of its business and that the corporation acts ethically in its business dealings and community relationships.”

I submit that exaggerating permit limits in Whitehorse, project splitting and giving false and deceptive information in Faro and denying Mayo it’s YESAA mandated EC screening by using arbitrary capacity numbers are examples of the corporation failing to act ethically. Has YEC complied with laws and regulations? Well not exactly. Why let YESAA get in the way?

I am not sure that you have been aware of some of the practices of YEC, and my hope is that you will work to make the corporation operate in a more ethical manner, which would benefit the public and employees.

To Lauren Haney:

It was telling and disappointing that nobody at YESAB would answer my questions directly. Ideally YESAB would be independent of YG and would be able to point out that the project that YEC submitted for Faro – for an additional 2.72 rental generators did not really resemble the project that actually happened – the addition of 7 rental generators. I asked how adding 7.35MW to the FGS without an EC screening was supported under YESAA – and the answer I got was that YESAB assessed the 4.9MW/2.72 generators, exactly what YEC asked to be assessed, ignoring the actual project. In reading the Evaluation Report, it was clear that YESAB was aware that this was an after the fact assessment of only part of the actual project, but the path of least resistance was going along with it. Garbage in, garbage out. Harsh yes, but unfortunately true.

I get it though. It is difficult to do what’s right in such a small place as Yukon. If you object to the project splitting or any of the other problems, your career might not advance, and you might hurt your chances of working for Yukon’s largest employer, YG. But now that you have been named deputy minister for the Department of Energy, Mines and Resources, I hope that you work to do what’s right. I doubt that your goal in working for YESAB was helping big companies stomp on the rights of small communities, and I hope that is not your goal now.

Now that you’re more on the YEC side than the YESAB side, you can discourage YEC from doing things like asking for after the fact YESAB assessments for 2.72 generators. As you are aware, defending these ways of circumventing YESAA can put the folks at YESAB in a difficult position.

To Nils Clarke:

I understand that you’re in a difficult position also, and making YEC follow the rules doesn’t work politically. Given that YEC was going to install and operate the generators in Faro anyway, your role (and the role of the Department of Environment) was to make it look vaguely legitimate. Kind of trapped in the system, just like everybody else.

The regulator's initial response to YEC's proposal for Faro in 2020 was correct – that it needed to go through YESAB before any permits or amendments could happen. Environment knew it was one project and that it should go through YESAB.

Faced with the hassle of an EC screening, YEC then asked that it be treated as two projects. Adding some capacity using the superseded 2011 assessment and the rest in a later YESAB. Project splitting to get around YESAA was accepted. No need for YEC and YESAB to go through time consuming EC consultations. Of course nobody noticed that the YAAQS had been updated in 2019 and what was ok in 2011 was not ok in 2020. In allowing the use of the superseded 2011 assessment in 2020, did the regulator really believe that in 2020 Yukon had the same population, energy needs and emissions regulations as back in 2011? Do you believe 2011 and 2020 were the same and presented the same challenges? Once again, path of least resistance.

By the way, if you are interested in reviewing the email chain where YEC asks to use the 2011 assessment and split the project, the link is below. YEC had provided the emails in an unreadable random order, so I put them in chronological order starting on page 3 of this document, with the ask for project splitting on page 11:

https://yukonutilitiesboard.yk.ca/pdf/YEC_2021_GRA/Nathaniel_Yee_aids_to_questioning_Sept_26_2021.pdf

Mistakes. These things happen. Getting caught making mistakes. That happens too. Compromising one's ethical standards? Is that the right response? People's lives are affected by your mistakes and compromised ethical standards. Perhaps standing up to YEC might have had a significant adverse effect on your career? Not standing up to YEC has, in the words of YESAB, "significant adverse effects to community wellness."

But then I am sure there are ways to proceed that would be ethical and good for all. I hope you decide to work towards doing things right, showing proper concern for the public and for YESAA and not always deferring to YEC. That means getting Mayo and Faro the EC screenings they deserve, and encouraging YEC to be honest and open with the public. Working to make things better. A worthy objective.

I think we're all doing things we'd rather not be doing. I am assuming that none of you enjoy deceiving the public, and I can definitely say that I don't enjoy spending time pointing out all of this mess.

We should expect better from a publicly owned company, and working together it can be improved.

Please let me know your ideas and plans on how to right these and other related wrongs, and how YEC, YESAB, YG Environment and the public can all work together instead of against each other to make things better.

Thanks,
-Nathaniel

- **Attachment S: Letter to the Editor about Mayo rentals and other YEC deceptive practices.**

YUKON NEWS

Letter: Yukon's newest greenfield diesel plant!

A look at diesel power generation in Mayo and elsewhere.

Aug. 23, 2023 1:00 p.m.

Let's be honest. Yukon Energy is building a new 9MW greenfield diesel plant just outside Mayo, less than one kilometre from the Five Mile Lake Campground.

Of course this is not what Yukon energy is saying in public or in their YESAB proposal for the project.

The proposal that YEC has submitted to YESAB is for the installation of five rental diesel generators of 1.8MW each (5 x 1.8= 9MW) but with a total permitted capacity of the project of only 4.9MW, the equivalent of 2.72 generators.

So how does this work? Why would Yukon Energy pay for five rental diesel generators and claim they will only run 2.72 of them? And how does Yukon Energy plan to run 2.72 generators without actually running three?

Easy Answer: Yukon Energy is playing games to avoid giving Mayo the assessment and consultation otherwise required by YESAA.

YESAA specifies that a thorough Executive Committee screening is required for projects of 5MW or more. Clearly this is meant to apply to this project. Running 3 generators only up to 4.9MW will have the same socio-economic impact as running three generators for a total of 5.4MW. Was the intention of YESAA to have 9MW projects or 5.4MW projects claim to be 4.9MW projects, or was it to provide assessment relevant to the scale of the project? Pretending to run 2.72 generators but not three to avoid an EC screening is not providing a proper assessment.

YEC has confirmed that the 4.9MW total is simply an attempt to get around the Executive Committee requirement. In YEC's words:

"The proposed site capacity expansion was limited to 4.9 MW so as not to trigger an Executive Committee (EC) Screening, i.e., a 5 MW increase would trigger an EC Screening." (1)

Sounds a lot like the Easy Answer above. Yes, in front of the Yukon Utilities Board, Yukon Energy admitted that claiming a 4.9MW capacity is done to avoid the legally required consultation and assessment that would happen if they used the actual capacity of the project. This statement was submitted by Yukon Energy during the 2021 GRA proceeding in discussion of their diesel strategy.

In the current YESAB application for the Mayo rental diesels, Yukon Energy conveniently does not mention that the capacity has been chosen to avoid an Executive Committee screening, but instead claims that two of the five generators are "spares" or "backups" in case two of the permitted 2.72 generators fail. Looked at in terms of capacity, of the 9MW to be installed, 4.9MW is to be assessed and permitted, and 4.1MW is backup, not subject to assessment.

However, in sworn testimony during the 2021 GRA hearings, YEC argued that in the existing rental diesel installations in Faro and Whitehorse, one spare (and only one) was needed in each location. (2)

The Yukon Utilities Board did not find this argument compelling and concluded that NO spares were needed in either Whitehorse or Faro: "The Board finds that the two spare units are therefore redundant, given that they essentially provide backup to the 15 diesel rental units which themselves are backup to YEC's system."(3)

It is therefore unclear why Mayo needs two spares in a total of five generators, given that YEC claimed to need only one spare each for Faro and Whitehorse – and that the Utilities Board considered even one to be unnecessary.

Ten per cent of the rental diesels in Whitehorse are considered “spare.” (1 of 10)

Fourteen per cent of the rentals in Faro are considered “spare.” (1 of 7)

Forty per cent of the rentals in Mayo are considered “spare.” (2 of 5???)

Why so many more “spares” or “backups” in Mayo than anywhere else? Are the rentals planned for Mayo amazingly unreliable or is YEC just trying to get around YESAA requirements using the method they described in the 2021 GRA hearings?

The Mayo proposal also mentions the noise study in Faro that supposedly claims the sound difference would be “barely perceptible.” This is deceptive on a number of levels, and not what YESAB concluded in YESAB 2021-0115 for Faro. Is it reasonable to compare noise differences for an addition of more rentals to an existing diesel facility (Faro) to a new greenfield diesel facility in Mayo? The difference in Mayo will of course be far more than the 1dB claimed in Faro – and the 1dB gain claimed in Faro was an estimate that turned out to be nowhere near accurate. The difference between the silence of zero generators by Five Mile Lake now vs the 2.72 (or five) generators Yukon Energy is proposing will be very very perceptible.

YESAB’s conclusions in the case of Faro:

The Watson Lake Designated Office has determined that the Project is likely to have significant adverse socio-economic effects on community wellness that require additional mitigation.

- Reduced quality of life for Faro residents: sound generated by project activities may interact with other users of the land in such a way to impact their quality of life.
- Reduced health: public health may be affected by project operations and long-term activity at the site.

...the use of generators at the FGS is expected to increase as the Proponent has noted a growing demand for electricity in the Yukon.

YESAB noting “Significant adverse effects” is of course not the same as Yukon Energy’s claim of “barely perceptible.” Noise exceeds BC acceptable standards where rental diesels are installed in Faro and in Whitehorse and there have been multiple noise complaints in both locations. Mayo, as the third location of rental diesel, could be expected to have a similar result.

Yukon Energy has provided incorrect and deceptive information about capacity, need for backups and noise in YESAB 2023-0090 for the Mayo greenfield diesel plant at Five Mile Lake Campground. Oh, and they mention distances from Mayo, but conveniently not the distance from Five Mile Lake. The public comment period for the imaginary 2.72 generator project ends on Aug. 28. Mayo deserves honesty from Yukon Energy, and deserves the more thorough Executive Committee screening specified by YESAA.

As a public company, is it ok for Yukon Energy to provide false and deceptive information to the public? Should honesty and integrity be part of the culture? Doesn’t seem to be there now.

In Whitehorse YEC misrepresented their permitted diesel capacity in public meetings. In Faro they used project splitting and superseded documents to avoid YESAA and air quality requirements. Now they bring this lack of integrity to Mayo. Enough already.

-Nathaniel Yee

• Attachment T: Refunds and Fines when utilities charge based on false information.

Utilities commission increases refund ATCO owes for attempt to recoup contract costs

Bob Weber | The Canadian Press | Posted: Thursday, April 27th, 2023 6:30 PM | Last Updated: April 27th

Ruling suggests ATCO also withheld information during Jasper investigation

Image | ATCO 20190515

Caption: ATCO chief executive officer Nancy Southern speaks at a company meeting in Calgary. (Jeff McIntosh/The Canadian Press)

Load Image

An Alberta regulator has added millions of dollars to the refund a prominent provincial utility must pay consumers after attempting to overcharge them for costs it shouldn't have incurred — and then trying to cover up the wrongdoing.

"These costs are under a cloud," said Jim Wachowich of the watchdog group Consumers' Coalition of Alberta.

"[The regulator] is confident in more than one finding of imprudence."

In a ruling released Wednesday, the Alberta Utilities Commission said ATCO Electric must refund about \$16 million to the Alberta Electric System Operator instead of the \$11 million the company had agreed to pay. The refund is in addition to a \$31-million fine the commission levied against the company over costs that ATCO tried to recover from the construction of a power line through Jasper National Park.

In 2018, the company illegally allowed a First Nations contractor to overcharge in the hope it would bring revenue to another ATCO branch and then tried to hide the deal from regulators. It is illegal for a regulated company to issue large single-source contracts that benefit a non-regulated company in this way.

- [Alberta Utilities Commission investigators want probe of ATCO dealings on TMX camps](#)

In April 2022, the commission and the company issued an agreed statement of facts on the case, which was revealed by an internal company whistleblower.

In addition to the fine, ATCO was required to refund the rate increases it had been granted on the basis of its costs for the Jasper project. The correct value of those increases, the commission ruled, is about \$16 million.

The increase is made up of about \$2.5 million for improper costs related to the sole-sourced contract. It includes \$250,000 the company tried to charge consumers for the costs of

covering up the illegal deal — "work conducted in an effort to mislead and conceal information," the ruling says.

- [Proposed ATCO fine over padded rate requests insufficient, consumers group argues](#)

Another \$3 million must be refunded for ATCO's "imprudent management and execution" relating to working in the narrow right-of-way conditions in a national park.

ATCO spokesman Robert Palmer said the \$3-million refund is not unusual.

"It is not unusual for the [commission] to make findings like this on projects and many of the other utilities in Alberta have had such decisions in amounts far greater than the \$3 million we see here. This is routine to see in ... decisions for all utilities."

In part of the ruling not connected to that investigation, the commission also required the company refund another \$4.4 million related to 14 cancelled projects.

Information withheld

The ruling suggests ATCO also withheld information during the Jasper investigation.

"There are instances where ATCO Electric was asked to provide supporting information, but declined to do so or provided incomplete responses," it says.

Company president Melanie Bayley has said the overpayment was an attempt to build capacity within the First Nation. However, documents filed with the commission say the band pocketed the money and outsourced the work — as the company suspected it would.

CEO Nancy Southern has apologized to shareholders.

Wachowich said once ATCO agrees with the accounting presented in the ruling, the matter will be finally closed.

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• **Attachment U: Forecast number of rental diesels until 2042.**

This is from the Atlin/THELP proceeding. I asked for an update as part of this GRA, and YEC said they were unable to forecast past 2028. Another example of YEC not providing accurate and complete information. The forecast looks ugly past 2028 without Moon Lake and Atlin, but seems to be tracking as accurately as expected. I crossed out the unfortunately irrelevant Atlin and Moon Lake columns.

Yukon Utilities Board
 Review of an Electricity Purchase Agreement
 between YEC and THELP

Yukon Energy Corporation
 NY-YEC-1-2 REVISED

Number of Diesel Rentals excluding spares				
Before Committed and Planned Supply Options	After Diesel Replacements, Whitehorse #2 Uprate, BESS and DSM	After Atlin	After Moon Lake [Phase I and Phase II]	
A	B	C [incl. B]	D [incl. C]	
2021/22	17	15	15	15
2022/23	19	16	16	16
2023/24	23	8	8	8
2024/25	25	10	6	6
2025/26	27	12	7	7
2026/27	29	14	9	9
2027/28	31	16	11	11
2028/29	34	18	14	0
2029/30	36	21	16	0
2030/31	39	24	19	0
2031/32	40	25	20	0
2032/33	42	26	22	0
2033/34	42	26	22	0
2034/35	42	27	23	0
2035/36	43	28	24	0
2036/37	44	29	24	0
2037/38	44	29	24	0
2038/39	45	29	25	0
2039/40	45	29	25	0
2040/41	45	30	25	0
2041/42	46	30	26	0

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Notes:

- Assumes diesel rental unit of 1.8 MW (this may change in future).
- Based on Table 4-1 of the Application, as revised in response to NY-YEC-1-6 a) and b), which provides forecast non-industrial peak, dependable capacity and capacity shortfall under N-1 for the period from 2021/22 through 2030/31 and Figure 4-1 of the Application which illustrates similar information that extends to 2041/42 years. Moon Lake pumped storage is a proposed future project that requires material grant funding to complete feasibility studies, as well as to proceed with actual development – its timing, if it proceeds, is likely to be delayed beyond time forecast in the 10-Year Renewable Electricity Plan.

YEC Submission Re: Yukon Utilities Board Review of the Electricity Purchase Agreement between YEC and THELP

April 2022

**Figure 4-1: Non-Industrial Peak & Dependable Capacity under N-1 Capacity Planning
Criterion: 2021/22-2041/42 Winter**

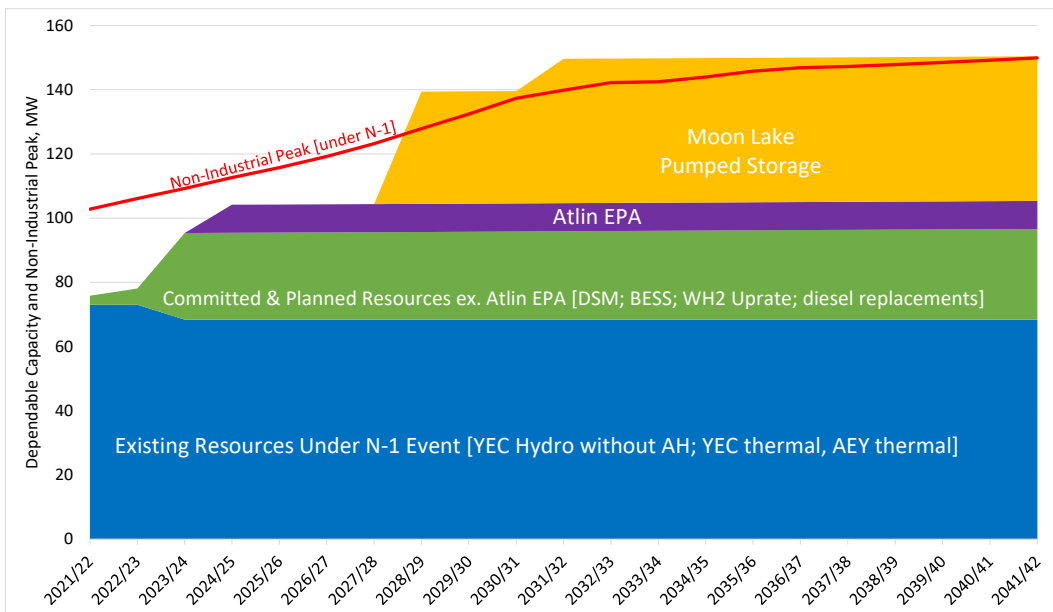


Table 4-1: Forecast Non-Industrial Peak and Dependable Capacity under N-1 Capacity Planning Criterion: 2021/22-2030/31 Winter (kW)

	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
Non-industrial Peak	104,102	107,372	110,546	113,952	117,030	120,515	124,517	129,214	133,769	138,676
Non-industrial Peak	103,284	106,277	109,078	111,985	114,393	116,982	119,783	122,870	125,268	127,285
EV Peak	818	1,096	1,468	1,968	2,637	3,533	4,734	6,344	8,501	11,391
Existing Resource Dependable Capacity	111,500	111,500	106,900	106,900	106,900	106,900	106,900	106,900	106,900	106,900
YEC Hydro	70,500	70,500	70,500	70,500	70,500	70,500	70,500	70,500	70,500	70,500
YEC Thermal	35,450	35,450	30,850	30,850	30,850	30,850	30,850	30,850	30,850	30,850
AEY Thermal	5,550	5,550	5,550	5,550	5,550	5,550	5,550	5,550	5,550	5,550
N-1 Event [Loss of AH GS or L171]	-37,195	-37,194	-37,193	-37,192	-37,191	-37,190	-37,189	-37,188	-37,187	-37,186
Loss of AH GS	-37,000	-37,000	-37,000	-37,000	-37,000	-37,000	-37,000	-37,000	-37,000	-37,000
Loss of AEY Haines Junction diesel	-1,500	-1,500	-1,500	-1,500	-1,500	-1,500	-1,500	-1,500	-1,500	-1,500
Haines Junction peak	1,305	1,306	1,307	1,308	1,309	1,310	1,311	1,312	1,313	1,314
Capacity Shortfall/Surplus under N-1	-29,797	-33,066	-40,839	-44,244	-47,321	-50,805	-54,806	-59,502	-64,056	-68,962
Committed and Planned Supply Options	2,843	5,047	26,952	35,768	35,835	35,902	35,971	71,039	71,109	71,179
Diesel Replacements	0	0	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500
Whitehorse #2 Uprate	638	638	638	638	638	638	638	638	638	638
BESS	0	0	7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200
Atlin Hydro EPA	0	0	0	8,750	8,750	8,750	8,750	8,750	8,750	8,750
DSM	2,205	4,409	6,614	6,680	6,747	6,814	6,883	6,951	7,021	7,091
Moon Lake Pump Storage Phase 1	0	0	0	0	0	0	0	35,000	35,000	35,000
Capacity Shortfall/Surplus under N-1	-26,955	-28,019	-13,887	-8,476	-11,486	-14,902	-18,835	11,537	7,053	2,217
Capacity Shortfall/Surplus under N-1 w/o Atlin/ Moon Lake	-26,955	-28,019	-13,887	-17,226	-20,236	-23,652	-27,585	-32,213	-36,697	-41,533