



Environmental Appeal Board

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DECISION NO. 2019-EMA-016(a)

In the matter of an appeal under section 100 of the *Environmental Management Act*, S.B.C. 2003, c. 53

BETWEEN:	John Pickford	APPELLANT
AND:	Director, <i>Environmental Management Act</i>	RESPONDENT
AND:	Pinnacle Renewable Energy Inc.	THIRD PARTY
BEFORE:	A Panel of the Environmental Appeal Board: Susan E. Ross, Panel Chair	
DATE:	Conducted by written submissions concluding on June 17, 2020.	
APPEARING:	For the Appellant: Self-represented For the Respondent: Rolf Warburton and Johnny Van Camp, Counsel For the Third Party: Ranjeev Sangra, Counsel	

APPEAL

[1] This appeal is from a decision of the Director (the "Director") under the *Environmental Management Act*, S.B.C. 2003, c. 53, to amend an emissions permit. The amendment to Permit 17557 (the "Amended Permit") authorizes Pinnacle Renewable Energy Inc. ("Pinnacle") to discharge increased air contaminants from the wood pellet manufacturing facility (the "Pellet Plant") it operates in the City of Williams Lake, British Columbia.

[2] The City of Williams Lake is located at the western end of Williams Lake in the Caribou-Chilcotin interior region of the province. It is intersected by the Williams Lake River as it flows west from the lake to the Fraser River.

[3] The Appellant, John Pickford, is a Williams Lake resident. He has an outdoor lifestyle and submits that he is aggrieved by the increase in particulate emissions allowed by the Amended Permit.

[4] Peter D. Lawrie, Section Head, Forest Products and Express Transactions, Ministry of Environment and Climate Change Strategy (the "Ministry"), is the Director who issued the Amended Permit.

[5] The appeal concerns the PM_{2.5} component of emissions allowed by the Amended Permit. PM_{2.5} refers to fine airborne particulate matter with a diameter of 2.5 micrometers (µm) or less. Because PM_{2.5} particles are respirable and can penetrate deep into the lungs, they have the potential to cause adverse health effects.

[6] The Amended Permit allows increased particulate emissions. It also has numerous conditions. Among them are requirements for Pinnacle to participate in an ambient air quality monitoring programme and conduct source monitoring of emissions from the Pellet Plant.

[7] The Appellant argues that:

- air dispersion modelling was not done or considered before the Director issued the Amended Permit;
- the increased PM_{2.5} emissions allowed by the Amended Permit will be harmful to human health; and
- the source monitoring required by the Amended Permit is not frequent enough and there should be no option for Pinnacle to request to reduce or discontinue it.

[8] The Appellant seeks the cancellation of the Amended Permit or, alternatively, the revision of its conditions for source monitoring of emissions.

[9] The Director and Pinnacle support the Amended Permit and the dismissal of the appeal.

[10] The Environmental Appeal Board (the "Board") hears this appeal pursuant to section 100(1) of the *Environmental Management Act*. The Board has authority under section 103 of that Act to:

- confirm, reverse or vary the Amended Permit;
- remit the matter back to the Director with directions; or
- make any decision that the Director could have made which the Board considers appropriate in the circumstances.

[11] This appeal was heard by written submissions at the request of the parties.

[12] This decision explains my conclusions on the merits of the appeal. It also resolves two procedural issues about whether the Appellant's reply submission covered issues and arguments that were already included or could have been included in his initial submission, and whether the Director tendered expert evidence without complying with the Board's Rules, practices and procedures governing such evidence.

[13] For the reasons provided below, I have concluded that air dispersion modelling was done and was considered by the Director. I have also concluded that the Appellant has not proven that either the increase in PM_{2.5} emissions allowed by the Amended Permit is harmful to human health, or the conditions for source emissions monitoring are flawed. The appeal is dismissed.

BACKGROUND FACTS AND THE PERMITTING PROCESS

[14] Pinnacle has discharged contaminants from the Pellet Plant pursuant to Permit 17557 since 2004. It also operates wood pellet plants in other communities in the region.

[15] The Pellet Plant has an existing drum dryer and emissions stack and baghouse stack. In 2018, Pinnacle undertook planning to add a new single pass belt dryer with four new 10-metre high stacks and make changes to the existing baghouse stack.

[16] Belt dryers are already used in Pinnacle's plants in Lavington and Smithers and three plants of other operators in Fort St. John, Chetwynd and Terrace. They pass heated air through a porous belt and bed of drying material, once for single pass belt dryers and twice for double pass belt dryers. All but one of the belt dryers operating in the province use the single pass dryer that Pinnacle plans to install in Williams Lake.

[17] Sections 14 and 16 of the *Environmental Management Act* govern the issuance and amendment of permits to introduce waste into the environment. Section 16(1) empowers the Director to amend an emissions permit subject to requirements for the protection of the environment that the Director considers advisable.

[18] Pinnacle's proposed modifications to the Pellet Plant will enable increased production and will result in likely increases in emissions controlled by Permit 17557. Pinnacle was therefore required to apply for a "significant amendment" to Permit 17557, and comply with notification, posting and publication requirements in Column 4, Schedule A of the *Public Notification Regulation*, B.C. Reg. 202/94 (the "*Regulation*").

[19] The Ministry describes five stages in the process for a significant permit amendment: preliminary application; notification of public stakeholders and consultation with First Nations and the Ministry; final application; Ministry staff review and recommendation report; and Director's decision.

[20] Pinnacle's preliminary application to amend Permit 17557 is dated May 18, 2018. The permitting process applies a qualified professional ("QP") reliance model that requires applications to be supported by technical assessment reports prepared by independent qualified professionals. The Ministry wrote to Pinnacle, setting out the Ministry's expectations concerning the application process. Soon after, Pinnacle delivered a draft air dispersion modelling report dated November 26, 2018, prepared by its technical consultants at RWDI Air Inc. ("RWDI"). RWDI undertook air dispersion modelling for both the existing and modified Pellet Plant. Its draft report underwent revision as the RWDI technical consultants worked to satisfy Ministry inquiries and requests for further information.

[21] The 30-day period for public notification began on March 5, 2019. As part of the requirements in section 4(2) and Schedule A of the *Regulation*, Pinnacle published an Environmental Protection Notice ("EPN") in the Williams Lake Tribune on March 6, 2019. The EPN stated that Pinnacle was applying to amend Permit 17557 to:

- upgrade the baghouse and increase the airflow from 25 cubic metres per second (m^3/s) to 30 m^3/s ; and
- add an authorized source of air contaminants: a low temperature bed dryer to be permitted at 15 milligrams per cubic metre (mg/m^3) and 90 m^3/s .

[22] The EPN invited any person who may be adversely affected by the proposed amendments to provide written information and comments to the Director within 30 days. This opportunity to comment is required under section 7(1) of the *Regulation*. Section 7(2) gives the Director discretion to continue to receive input after the 30-day period, until the Director makes a decision on the proposed amendment. I accept the Ministry's evidence that the Director continued to accept comments until the Amended Permit was issued.

[23] On March 20, 2019, Pinnacle published a notice in the Williams Lake Tribune of an open house to answer questions from public at the Williams Lake Visitors Centre on March 28, 2019.

[24] On March 25, 2019, Pinnacle made a copy of its draft air dispersion modelling report, and the amendment application itself, publicly available at the Williams Lake Public Library. The materials at the library continued to be available until after the issuance of the Amended Permit.

[25] The March 28 open house was hosted by Pinnacle representatives and attended by Ministry staff as observers. Fifty-four representatives of other agencies and members of the public signed in at the open house. Pinnacle also made the posters used for the open house available on its website.

[26] At the end of April, Pinnacle submitted its final application package to the Ministry. This package included Pinnacle's public notification and consultation report, and RWDI's Final Technical Assessment Report dated April 16, 2019.

[27] The Ministry's subject matter specialist, Ralph Adams, an Air Quality Meteorologist, prepared a report dated July 12, 2019 entitled "Review of Technical Assessment Report for Proposed Changes to Pinnacle Pellet Williams Lake Pellet Plant" (the "Ministry Review of Technical Assessment Report"). This report evaluates RWDI's air dispersion modelling and makes recommendations for permit conditions.

[28] Matthew Lamb-Yorski, an Environmental Protection Officer, prepared the Ministry Assessment Report dated August 15, 2019. This report covers permit history, public notification, consultation and technical assessments, and recommends granting the amendment application with certain conditions. Mr. Lamb-Yorski consulted with the Director as he worked on the Ministry Assessment Report and then provided the final report to him. This report reproduces Table 2-2 of RWDI's Final Technical Assessment Report, comparing annual maximum permitted emissions for the existing and Amended Permit:

Annual permitted emissions (tonnes per year)	PM _{2.5}	PM ₁₀	NO _x
Existing Pellet Plant	15.8	20.8	15.5
Pellet Plant with modifications allowed by the Amended Permit	51.4	63.5	67.6

[29] On August 20, 2019, the Director adopted the Ministry's recommendations and issued the Amended Permit (17 pages) together with reasons for his decision (2 pages).

[30] The Amended Permit imposes conditions that were recommended by Mr. Adams. Among them are:

- section 2.5 requires Pinnacle to participate in a programme of ambient monitoring acceptable to the Director, to:
 - investigate the spatial variability of PM_{2.5} in the airshed; and
 - confirm that the emissions of PM_{2.5} from the Pellet Plant do not cause air quality in the airshed to exceed the 24-hour and annual provincial ambient air quality objectives ("AAQOs"¹).
- section 3.4 requires Pinnacle to conduct source monitoring of emissions from the Pellet Plant; it also allows Pinnacle to request reduced frequency or the discontinuance of source monitoring after a number of successful tests.

[31] The Appellant filed this appeal on September 17, 2019. He is self-represented, but has brought a previous appeal to the Board and participated in its processes: see three decisions in *Pickford and others v. Director, Environmental Management Act*, Decision Nos. 2016-EMA-130(c), 144(c), 145(c), 146(c), 147(c) and 149(c) (April 10, 2019) [*Pickford #1*]; Decision Nos. 2016-EMA-130(b), 144(b), 145(b), 146(b), 147(b) and 149(b) (July 27, 2018); and, Decision Nos. 2016-EMA-130(a), 131(a), 133(a), 144(a), 145(a), 146(a), 147(a), 148(a) and 149(a) (March 29, 2017). These decisions concern appeals by the Appellant and others of an amended air emissions permit issued by the Director, to a biomass-fueled electricity generating facility in Williams Lake.

[32] In its submission on this appeal, Pinnacle advises that it was scheduled to complete commissioning of the new equipment at the Pellet Plant on March 22, 2020. However, construction was stopped on March 18, 2020, because of the COVID-19 pandemic, and Pinnacle intends to complete construction once COVID-19 issues have subsided.

¹ Provincial and federal government agencies set separate similar, though not identical, AAQOs.

SUMMARY OF THE APPELLANT'S CASE

[33] In his notice of appeal, the Appellant submits that the Amended Permit allows a more than 300% increase of particulate matter emissions over the initial 2004 permit. Referring to a 2016 World Bank Group report and 2018 B.C. Lung Association report, he asserts that air pollution is a leading fatal risk to human health, Williams Lake had the highest average PM_{2.5} emissions in 2017, and past and probable wildfires increase air pollution in a valley community. The implication of these assertions is that increased PM_{2.5} emissions allowed by the Amended Permit are harmful to local air quality and human health. The notice of appeal contends that:

- ambient particulate matter was not measured or factored into the decision to issue the Amended Permit;
- ambient monitoring of PM_{2.5} in the airshed should precede and justify the issuance of an amended permit; and
- the source monitoring of emissions required in section 3.4 of the Amended Permit is too infrequent and should not be able to be discontinued.

[34] The Appellant requests the following remedies in his notice of appeal:

- cancellation of the Amended Permit;
- ambient monitoring of PM_{2.5} in the airshed indicating that provincial AAQO criteria are not exceeded before the issuance of an amended permit; and
- alternatively, more frequent source monitoring of emissions and expungement of the option in the Amended Permit to discontinue source monitoring.

[35] The Appellant's submission on the appeal consists of his comments about the Amended Permit in relation to the following documents:

- B.C. Lung Association "State of the Air" reports (2017-2019);
- Williams Lake Airshed Management Plan (2016);
- Pinnacle's EPN dated March 6, 2019;
- EPN of Enbridge Inc. dated January 10, 2020, for its application to amend an air emissions permit for a gas transmission compression station near Williams Lake; and
- World Bank Group report "The Cost of Air Pollution: Strengthening the Economic Case for Action" (2016).

[36] The Appellant submits that the Director should have requested and consulted air quality modelling before issuing the Amended Permit.

[37] The Appellant submits that the reports he has provided show that PM_{2.5} emissions are dangerous to human health and are often associated with wood fire combustion including wildfires. He says that wildfires are increasing in frequency due to climate change, especially in the Central Interior region where Williams Lake

is located. He points to data showing that Williams Lake had the highest PM_{2.5} level in the province in 2017, exceeding BC annual AAQOs by more than double.

[38] The Appellant also refers to deleterious effects of Volatile Organic Compounds (“VOCs”) on human health, and he submits that increased VOCs will result from the increased PM_{2.5} emissions allowed by the Amended Permit.

[39] The Appellant submits that the jurisprudence mandates a “cautious” approach to assessing applications for waste emission permits. He says this was not done for the Amended Permit because it:

... is not based on, nor supported by, air dispersion modelling, or any modelling at all. No such modelling has been publicly disclosed by [Pinnacle], nor referenced by the [Director], in support of the permit amendment.

[40] He requests:

- cancellation of the Amended Permit; and
- an order requiring Pinnacle and the Director to conduct air dispersion modelling before the increased emissions in the Amended Permit can be allowed.

[41] His submission does not address the permit conditions for source monitoring of emissions, other than to request expungement of the option for reduced or discontinued source monitoring in section 3.4 of the Amended Permit.

SUMMARY OF THE DIRECTOR’S CASE

[42] The Director’s submission consists of a brief of argument and three affidavits.

[43] The affidavit of Mr. Adams dated February 26, 2020, describes his educational, professional and employment background, and his role as the Ministry’s subject matter specialist responsible for technical assessments of proposed amendments of permits to discharge air contaminants. The exhibits to his affidavit include RWDI’s draft and revised air quality modelling reports, further maps and spreadsheets from RWDI, and the Ministry Review of Technical Assessment Report prepared by Mr. Adams.

[44] The Ministry Review of Technical Assessment Report concluded that:

The [air dispersion] modelling results show that exceedances of [AAQOs] may occur at the fenceline of the facility but that maximum concentrations decrease rapidly with distance from the facility. (page 2)

...

... it is unlikely that the proposed changes in the facility will result in a significant (i.e. measurable) deterioration in air quality in the airshed. If there are any impacts they will be close to the facility (within 500 m) in the areas immediately to the WNW and ESE of the facility. (page 4)

...

Ambient air quality in the Williams Lake airshed is generally considered good, but with periods of degradation due to poor dispersion conditions. However, in

years when there are large wildfires, air quality is significantly degraded during summer. When accepted techniques are used to remove the effect of wildfire smoke, both the Provincial and Federal [AAQOs] for all measured parameters have been met in the airshed over the last years of measurement. (page 5)

[45] The Ministry Review of Technical Assessment Report was not limited to PM_{2.5} particles, but my decision concentrates on those because they are the basis of this appeal.

[46] The relevant AAQOs for PM_{2.5} particles are set out in Table 1 of the Ministry Review of Technical Assessment Report, which I have summarized below:

PM _{2.5} (mcg/m ³)	Annual	Daily
BC AAQO	8	25
Canadian AAQO	10	28

[47] The BC annual AAQO is based on an average over one year, whereas the Canadian annual AAQO is based on average over three consecutive years. Similarly, the BC daily AAQO is based on the 98th percentile of daily averages over one year, whereas the Canadian daily AAQO is based on the 98th percentile of daily averages over three consecutive years.

[48] The Ministry Review of Technical Assessment Report described a technique for removing the effects of wildfires from measured PM_{2.5} levels by replacing data from a summer forest fire season that exceed a certain PM_{2.5} level, with average values for the same day in years when fires did not have a significant effect on PM_{2.5} levels. It noted that this technique does not remove all effects of wildfires. Taking into account such uncertainties, in years without large numbers of forest fires, both the BC and Canadian AAQOs are met at the Columneetza air station, located at Columneetza School in the City of Williams Lake. In this regard, the Ministry Review of Technical Assessment Report states on page 8:

... the current PM_{2.5} levels in Williams Lake are below current provincial objectives for PM_{2.5}. The levels are below the Federal CAAQO values of 10 and 30... for the annual and daily objectives respectively. It should also be noted that in 2020 the CAAQOs for PM_{2.5} will become more stringent. The values for the annual and daily objective will decrease to 8.8 and 27.... The new objectives would also be met using the measured values presented here.

[49] Table 4 in the Ministry Review of Technical Assessment Report indicates that the background PM_{2.5} levels at the Columneetza air station were 6.8 micrograms per cubic metre (mcg/m³) (annual average) and 20 mcg/m³ (daily average) in 2015, and 5.8 mcg/m³ (annual average) and 15 mcg/m³ (daily average) in 2016. 2015 and 2016 were years with no major wildfires. 2017 and 2018 were years with major wildfires, but if the effects of wildfires are removed, the PM_{2.5} levels at the Columneetza air station for those years were 7.9 to 8.1 mcg/m³ (annual average) and 22 to 25 mcg/m³ (daily average). All of those adjusted levels are below the BC and Canadian AAQOs.

[50] The Ministry Review of Technical Assessment Report noted that wildfires have a clear effect on $PM_{2.5}$ levels. In 2017 and 2018, the fire-included measurements significantly exceeded the AAQOs, but not the fire-excluded measurements. The 2017 and 2018 fire-included annual averages were 12 and 7.3 mcg/m^3 more than the fire-excluded annual averages (approximately double). The fire-included and excluded differentials for the daily average levels were even larger for 2017 and 2018.

[51] The Ministry Review of Technical Assessment Report noted that the contribution of the existing Pellet Plant to annual average $PM_{2.5}$ levels at the Columneetza air station is between 0.1 and 0.25 mcg/m^3 , or almost no effect, according to RWDI's April 16, 2019 Final Technical Assessment Report. It also noted that RWDI's air dispersion modelling assumed that the Pellet Plant's existing contribution to annual average $PM_{2.5}$ levels is 1.4 mcg/m^3 , despite the fact that this level was predicted to occur only at the fence line of the property and not over the rest of the airshed.

[52] Based on RWDI's estimates and modelling results at the fence line, the Ministry Review of Technical Assessment Report calculated the maximum modelled $PM_{2.5}$ contributions at the fence line to be 2.3 mcg/m^3 (annual average) and 13 mcg/m^3 (daily average) for the existing facility, and 4.9 mcg/m^3 (annual average) and 27 mcg/m^3 (daily average) with its proposed modifications. Combining maximum modelled $PM_{2.5}$ levels from the modified facility with expected background levels yielded 11 mcg/m^3 (annual average) and 35 mcg/m^3 (daily average) at the fence line, levels that exceed the BC and Canadian AAQOs.

[53] However, the Ministry Review of Technical Assessment Report observed that the modelled values decrease rapidly with distance from the fence line, and the AAQOs would be met "at the closest sensitive receptors" (i.e., a hospital, the Canadian Tire parking lot, several schools, day cares, and retirement homes). The report also explained that under the Ministry's "Policy for Permitting Air Emissions in Airsheds that Exceed the $PM_{2.5}$ Air Quality Objectives", if combined background $PM_{2.5}$ levels and increases from the operation of a proposed facility are greater than the annual average BC AAQO, then the spatial distribution of background levels and the incremental levels from the proposed facility are examined to determine if the proposed facility will have a significant effect on the parts of the airshed where there are exceedances.

[54] The Ministry Review of Technical Assessment Report concluded that Pinnacle's proposed modifications to the Pellet Plant are unlikely to have a significant impact on the $PM_{2.5}$ levels in the airshed, because the maximum modelled annual level at the fence line for the modified facility decreased to less than 1 mcg/m^3 approximately 500 metres away from the fence line. There are retail and commercial operations within the 500-metre zone from the fence line, notably the Canadian Tire store, but no sensitive receptors.

[55] In sum, the modelling results showed that the proposed modifications may result in $PM_{2.5}$ levels that exceed the BC and Canadian AAQOs at the fence line. However, the AAQOs are not intended to be used as fence line objectives, the maximum predicted levels are likely significantly overestimated, maximum levels will decline rapidly with distance away from the fence line, and there is no

indication of exceedances in sensitive receptor zones (such as Columneetza School).

[56] Mr. Adams prepared the last two exhibits to his affidavit, exhibits "H" and "I", in response to this appeal.

[57] Exhibit "H" is a chart of 2019 annual average PM_{2.5} levels across a list of sites in BC including Williams Lake. The data, drawn from publicly available government sources, is a 2019 update of similar data charts from 2016 to 2018 in the B.C. Lung Association "State of the Air" reports included in the Appellant's submission.

[58] Exhibit "I" is a 15-page report entitled, "Air Quality in Williams Lake" (February 19, 2020). This report is described as a summary assembled from publicly available data measurements at the Columneetza air station from 2001 to 2019. It analyzes the effect of wildfires on air quality data in Williams Lake in more detail than the Ministry Review of Technical Assessment Report. The general purpose of Exhibit "I" is to illustrate that exceedances of PM_{2.5} AAQOs in Williams Lake have been due to summer wildfires outside the airshed, and not due to local controllable sources such as permitted industrial facilities.

[59] Although paragraph 40 of the Director's submission states that Mr. Adams' affidavit is not tendered as expert evidence, it goes on to submit that he "possesses the necessary education and experience to assist the Board by providing opinion evidence on the interpretation and analysis of air dispersion modelling methodologies and results, and the interpretation and analysis of ambient air quality data". Paragraph 23 of his affidavit states:

I understand the appellant in this matter alleges, at least by implication, that the air quality in Williams Lake is currently unacceptable. In my opinion, however, this is not the case, especially if the impacts of recent wildfire seasons are discounted as explained below [with reference to Exhibits "H" and "I"] (emphasis added).

[60] The affidavit of Mr. Lamb-Yorski describes his educational, professional and employment background, the stages of the permitting process, and his role working with stakeholders and preparing information necessary for the Director to consider the amendment application. The exhibits to his affidavit include the Ministry's letter to Pinnacle setting out the process expectations for the amendment application, the formal consultation responses from the Williams Lake Indian Band and City of Williams Lake, the Ministry Assessment Report dated August 15, 2019 (prepared by Mr. Lamb-Yorski) and attachments², and the Ministry's Guidance on Applications for Permits under the *Environmental Management Act* dated September 25, 2010, which discusses the Ministry's QP reliance model.

[61] The Williams Lake Indian Band's consultation response includes an assessment of potential health effects dated June 24, 2019, by scientists at Intrinsik Environmental Services Corp. ("Intrinsik"). Based on a review of the amendment application, air dispersion modelling data from Pinnacle, the BC and Canadian AAQOs, World Health Organization air quality guidelines, and discussions

² The attachments include the Ministry Review of Technical Assessment Report.

with both Ministry and Pinnacle, Intrinsik concluded that “the potential for adverse health effects associated with the Amendment emissions is considered low” (page 14).

[62] The Director’s affidavit describes his educational, professional and employment background and role in this matter. He is a professional agrologist experienced in air quality assessment and emissions permitting. The exhibits to his affidavit include the Amended Permit and his accompanying reasons for decision.

[63] The Director’s reasons for decision set out that he:

- reviewed the Ministry Assessment Report and the Ministry Review of Technical Assessment Report;
- considered Pinnacle’s complaint and compliance history;
- noted that the notification and consultation process had been satisfied;
- had continued to accept information after the required 30-day consultation period;
- considered the Ministry Review of Technical Assessment Report, including issues of blue haze and fugitive dust that had been observed originating from the Pellet Plant by complainants and Ministry compliance staff; and
- considered the dispersion of VOCs.

[64] The Director submits that the evidence on this appeal is incontrovertible that Pinnacle undertook, and the Director considered, comprehensive air dispersion modelling, including enquiries and evaluations by the Ministry’s subject matter specialist, Mr. Adams.

[65] The Director submits that his conclusion that the Amended Permit does not pose significant risk to human health was fully justified by the information before him, which included technical assessment reports from several qualified professionals. He submits that the Appellant has provided only generalized concerns about air quality in Williams Lake and elsewhere, no qualified technical evidence and no evidence of any specific health risk to him.

SUMMARY OF PINNACLE’S CASE

[66] Pinnacle adopts the Director’s submission. It adds that the appeal has no merit because the permitting process considered significant, comprehensive air dispersion modelling and whether the Amended Permit posed significant risk to human health.

SUMMARY OF THE APPELLANT’S REPLY

[67] The Appellant’s reply submission (13 pages) covers several areas. I have summarized this submission as follows:

- The Appellant notes that Pinnacle’s EPN did not refer to air dispersion modelling, whereas Enbridge Inc.’s EPN for its application to amend a permit for a gas transmission compression station near Williams Lake did.

- He analyzes and challenges the methodology and conclusions in RWDI's air dispersion modelling report, and the review of that report in the Ministry Review of Technical Assessment Report.
- He raises the history of public concerns and complaints about blue haze from the Pellet Plant.
- He submits that the Ministry Review of Technical Assessment Report should not have factored out the effect of wildfires on air particulate data.
- He submits that the Amended Permit is flawed because the health hazard of VOCs was not considered in Pinnacle's air dispersion modelling report or the Ministry Review of Technical Assessment Report.
- He seeks wider remedies: continuous emissions monitoring; reduced opacity specification; requirement for measurement of VOCs; and, unspecified reduction in total allowed particulate emissions.

[68] The Director contends that the Appellant's reply submission strays from the grounds of appeal argued in his initial submission. The Director says the appeal should be confined to the original grounds. He objects to the Appellant using his reply submission to raise issues and make arguments challenging technical reports that could and should have been in his notice of appeal and initial submission.

[69] The Appellant says the Director's objection to his reply submission should be rejected because it would unfairly narrow the appeal and prevent the Board from fully scrutinizing the approval of the Amended Permit.

ISSUES

[70] I will consider the issues raised by this appeal in the following order:

1. Does the Appellant's reply submission cover issues and arguments that were already included, or could have been included, in his initial submission?
2. Does the Director's submission introduce expert evidence without complying with the Board's Rules governing such evidence?
3. Was air dispersion modelling done and was it considered by the Director before issuing the Amended Permit?
4. Was Pinnacle's EPN required to refer to air dispersion modelling and was such data publicly available?
5. Has the Appellant proven that the Director issued the Amended Permit without proper or adequate regard for the protection of the environment?
6. Has the Appellant proven that the source monitoring conditions in section 3.4 of the Amended Permit are flawed?

DISCUSSION AND ANALYSIS

- 1. Does the Appellant's reply submission cover issues and arguments that were already included, or could have been included, in his initial submission?**

[71] In my view, the Director's objection to the Appellant's reply submission revolves around the principles that govern the bringing and hearing of an appeal, in this case one conducted by written submissions. I will summarize those principles as follows:

- An appellant is expected to make their case in their notice of appeal and initial submission.
- An appellant will be taken to have abandoned a ground of appeal if they do not address that ground in their initial submission.
- An appellant is not expected to file evidence against their own case. However, they may not split their case by holding back on the grounds and merits of their appeal in their initial submission and then introducing or supplementing those grounds and arguments in their reply submission.
- An appellant's reply submission should address any new issues and arguments in the responding parties' submissions, and it should not repeat what has already been said in the appellant's initial submission.
- The Board can relax rules for the hearing process but will do so only for good reason, which does not include permitting a rearguard strategy by the appellant or unfair surprise tactics by any party.

[72] The reasons for this framework are obvious. The appellant is expected to be organized and up front by making their case known in their notice of appeal and initial submission, so the responding parties can answer that case. The appellant then has the final word on what the responding parties have said about the evidence for and against the appellant's case. This is fair and aligns with the appellant's burden to prove the merits of their appeal. It also avoids serial requests by the parties to reply, sur-reply or re-open their cases in order to add or respond to issues and arguments that could and should have been in their scheduled submissions. The Board can relax this framework, but it will do so only for good reason.

[73] The Board has established Rules for its practice and procedure pursuant to section 11 of the *Administrative Tribunals Act*, S.B.C. 2004, c. 45. It also publishes a Practice and Procedure Manual, and Information Sheets and Checklists on specific topics. These materials are available on the Board's website and are written for use by both lay and legally trained users.

[74] After this appeal was filed on September 17, 2019, the Board Registrar sent the Appellant an overview Information Sheet, directed him to the Board's website for more information, and invited him to contact her with any questions. The Director asked for the appeal to be conducted on written submissions and the other parties agreed in separate correspondence.

[75] The Registrar set the order of submissions according to both the norm for Board proceedings and what the parties requested: Appellant's submission (by January 31, 2020), Director's submission (by March 6, 2020), Pinnacle's submission (by April 2, 2020), and the Appellant's reply submission (by June 5, 2020).

[76] The Registrar referred to the Appellant's initial submission as "written comments and pertinent documentation" and to his reply submission as "rebuttal

comments” but nothing turns on that terminology. Following the norm again, the Registrar stipulated that “No new evidence is to be included in the rebuttal comments” (original emphasis). The Registrar also sent the parties printed copies of two Information Sheets about written hearings. The first of these, “Preparing for a Written Hearing and Preparation Checklist” (3 pages), states:

If you are a person bringing the appeal (the **Appellant**), it is up to you to prove, on a balance of probabilities, that the decision under appeal should be changed; i.e., that it is more probable than not that your claim is true.

[77] This Information Sheet goes on to state:

2. Include all relevant information. Everything that you want the Board to know about your case must be included in your submissions. In addition to your background information, explanations and arguments as to why the Board should decide the case in your favour, all of your evidence (see description below) must also be included with your submissions. Parties should not assume that someone else will provide the evidence, or that the Board will already know something. You must ensure the evidence is with your submissions and also explain to the Board how this evidence proves your case.

[78] A list follows describing kinds of evidence that could be presented: documentary evidence, photographs, affidavits, witness statements and expert evidence (noting that Rule 25 governs how to provide expert evidence). The Information Sheet states:

5. Replying to/disagreeing with information provided by others. If other parties have said things in their submissions that are not correct, or that you disagree with, you should address these in your submissions. As the Appellant makes his/her submissions first, the Appellant is given an opportunity to provide a final “reply” submission at the end of the hearing. This allows the Appellant to comment on what the other parties have submitted.

[79] The Information Sheet concludes with the following Preparation Checklist for appellants:

- ◇ Review the notice of appeal and any other relevant documents.
- ◇ List what remedy(ies) that you want from the Board (what you want the Board to order).
- ◇ List the points you need to prove in order to win the appeal.
- ◇ Consider how you will prove each one (documents, photos, affidavits, expert report, etc.).
- ◇ Gather the documents you need and organize them in logical order.
- ◇ Arrange for any expert witnesses or reports and provide the required advance notice under Rule 25.
- ◇ Contact any witnesses you decide are necessary to prove your case.
- ◇ Have your witnesses prepare their reports, witness statements or affidavits.

- ◇ Prepare your written submissions.
- ◇ Provide your submissions to the Board and the other parties within the timelines set out by the Board, and in the quantities required by the Board.

[80] Another relevant Information Sheet on the Board's website is "Requesting an Order for Documents to be Disclosed" (1 page). It states:

Each party must provide the documents that they will be relying upon as part of their case to the Board and the other parties In a written hearing, they are to be provided as part of the party's written submissions (Rule 20).

...The Board encourages parties to co-operate in the exchange of information as soon as possible in the appeal process to ensure that the matter proceeds in an informed and expeditious manner. In particular, the respondent is encouraged to provide the appellant with early access to copies of the documents, and relevant portions of the legislation, policies and guidelines upon which the respondent relied to reach the decision being appealed.

What if I need a document from someone else?

You must arrange to obtain the documents and other evidence that you will need to make your case. If someone else has the document(s) that you need, you will need to write to the person with the document(s) and ask them to voluntarily provide you with a copy.

[81] An appellant may ask to amend their notice of appeal if they obtain documents that call for different or wider grounds of appeal. The objective remains the same: for an appellant to make their grounds of appeal known in their notice of appeal (or amended notice of appeal) and then establish those grounds through evidence and arguments in their initial submission. They should not wait to introduce and argue grounds of appeal or evidence in their reply to the responding parties' submissions. In the present case, the Appellant made no requests for documents from the other parties.

[82] The Appellant appealed the Amended Permit on the basis that there was no air dispersion modelling. He did this without obtaining readily available notice and consultation materials and related technical reports, before the issuance of the Amended Permit or through a request for documents after he filed his notice of appeal.

[83] It was up to the Appellant to be reasonably compliant with the Board's hearing process and Instruction Sheets. With respect to his reply submission, I conclude that:

- His objection to Pinnacle's EPN is repetitive.
- His challenges to the methodology and conclusions in RWDI's air dispersion modelling report and the Ministry Review of Technical Assessment Report raise new issues that were not in his grounds of appeal and initial submission. They are not proper reply to the other parties' responding submissions and will not be considered.
- His reply submission that Mr. Adams should not have factored out the effect of wildfires on air particulate data is repetitive, but will be considered insofar

as it relates to Exhibits “H” and “I” of Mr. Adams’ affidavit, which I will discuss in the next section of this decision.

- His reply submission respecting VOCs covers ground that should have been brought forward in his initial submission and will be considered only insofar as it largely repeats his contention that the effect of VOCs was not considered in the issuance of the Amended Permit.
- The wider remedies sought in his reply submission raise issues that are not tied to his grounds of appeal and initial submission, and are not a reply to the other parties’ responding submissions.

[84] I applied the same approach to more minor points in the Appellant’s reply submission. This does not interfere with the Board’s full consideration of the appeal; it respects the proper boundaries of the appeal, and the Board’s process for ensuring that the Director and Pinnacle had an opportunity to respond to the appeal.

2. Does the Director’s submission introduce expert evidence without complying with the Board’s Rules governing such evidence?

[85] For written hearings, the Board’s Rule 25 requires notice to be given of an expert’s written statement or report, or reply expert evidence, at least 84 days in advance of the scheduled date for the appellant’s initial submission, unless otherwise directed by the Board. When the Registrar set the schedule for submissions on this appeal, she noted Rule 25 and the Board’s willingness to abridge timelines for notice of expert evidence. No party requested an abridgement of time under Rule 25 or otherwise indicated that they would be adducing expert evidence.

[86] How the Board receives expert evidence from the Director in an oral hearing of an appeal was considered in *Shawnigan Residents Association v. BC (Director, Environmental Management Act)*, 2017 BCSC 107, a judicial review of a Board decision concerning a permit for the operation of a contaminated soil storage facility. In *Shawnigan*, the Board had applied its Rules governing expert evidence to the appellants but not to the Director, on the mistaken understanding that it was not appropriate to qualify government witnesses as experts because they are not independent.³

[87] The Court observed that “the appeal before the Board was essentially a contest among experts over the safety and engineering of the project” (para. 110). The Court concluded that admissibility of and procedures for tendering expert evidence were therefore of central importance to the appeal, and it had been unfair for the Board to admit expert evidence from government witnesses on a different basis than it admitted expert evidence from the appellants’ witnesses.

³ The Board hearing in *Shawnigan* preceded the Supreme Court of Canada’s decisions in *White Burgess Langille Inman v. Abbott and Haliburton Co.*, 2015 SCC 23, and *Mouvement laïque québécois v. Saguenay (City)*, 2015 SCC 16, which held that a tribunal could accept expert evidence from a witness affiliated with a party so long as the tribunal was satisfied that the expert was willing and able to give fair, objective and nonpartisan evidence.

[88] The Director's submission on this appeal states that no part of Mr. Adams' affidavit is tendered as expert evidence. Yet, the Director also submits that Mr. Adams is an expert and offers his expert opinion respecting Exhibits "H" and "I", which he prepared in response to the Appellant's initial submission. Yet further, the parties agreed that this appeal would be conducted on written submissions and, despite being reminded of the requirements of Rule 25 respecting expert evidence, no party (including the Director) indicated that they were tendering expert evidence.

[89] Exhibit "H" is an update of a chart of publicly available information in the B.C Lung Association "State of the Air" reports tendered with the Appellant's initial submission. I find that Exhibit "H" is factual and uncontroversial information that is available to the public. I am admitting Exhibit "H" on that basis.

[90] Exhibit "I", and the paragraphs in Mr. Adams' affidavit that address it, are his more detailed data compilation, analysis and conclusions on the effect of wildfires on PM_{2.5} measurements in Williams Lake. This evidence should have been tendered in compliance with the procedural requirements for expert evidence in Rule 25. Alternatively, the information could have been tendered if the Director had requested, and the Board had granted, a variation of those requirements. However, none of these things occurred. Consequently, I am disregarding and not admitting Exhibit "I" and the paragraphs in Mr. Adams' affidavit and the Director's submission that deal with it.

[91] I have said, under Issue 1 above, that the Appellant had an obligation to be reasonably compliant with the Board's hearing process and Instruction Sheets. Likewise, the Director had to respect the requirements for tendering expert evidence. The Board's oral hearing in *Shawnigan* was a lengthy contest between expert witnesses. That is not the case here, where the parties agreed to a written hearing without expert evidence. The Director's inclusion of Exhibit "I" failed to comply with both Rule 25 governing expert evidence and the type of hearing that the parties agreed to for this appeal.

[92] In the result, my decision considers neither the improperly expansive parts of the Appellant's reply submission, nor Exhibit "I" and the paragraphs in Mr. Adams' affidavit that address it.

[93] In weighing the merits of this appeal, I have considered the Amended Permit, the Director's reasons for decision, the admissible technical and non-technical evidence from the parties which includes the materials that were before the Director when he made his decision, and the parties' arguments for and against the appeal.

3. Was air dispersion modelling done and was it considered by the Director before issuing the Amended Permit?

[94] The evidence is conclusive that Pinnacle provided the Ministry with a preliminary air dispersion modelling report prepared by its technical consultants, RWDI. That report underwent revision in response to inquiries and information requests from the Ministry. The final air dispersion modelling report was evaluated in the Ministry Review of Technical Assessment Report. Both the RWDI final air

dispersion modelling report and the Ministry Review of Technical Assessment Report were considered by the Director.

[95] I therefore dismiss the ground of appeal that air dispersion modelling was not done and not considered by the Director.

4. Was Pinnacle's Environmental Protection Notice required to refer to air dispersion modelling and was such data publicly available?

[96] The Appellant raises subsidiary issues of whether Pinnacle's EPN should have referred to air dispersion modelling and whether such data was available to the public.

[97] Section 4 of the *Regulation* requires a permit applicant to give notice "of the application" according to the notification, posting and publication requirements in Schedule A. There is no requirement in the *Regulation* for an EPN to refer to technical reports that are filed with an application. Pinnacle's EPN accurately disclosed the substance of its amendment application and the right of the public to provide input to the Director under section 7(1) of the *Regulation*. The notice requirement that applied to Pinnacle's application comes from the *Regulation*, not from whether Enbridge Inc.'s EPN for another permit amendment application referred to air dispersion modelling. I find that Pinnacle's EPN complied with the *Regulation*, and it did not need to refer to air dispersion modelling.

[98] In addition, the evidence is conclusive that Pinnacle's draft air dispersion modelling report was made publicly available at the Williams Lake Public Library on March 25, 2019 and continued to be available until after the issuance of the Amended Permit. I accept Pinnacle's submission that it was also open to sharing its air dispersion modelling reports directly with the Appellant, had he requested that.

[99] I also accept the uncontested evidence of the Ministry and Pinnacle that the Appellant made no enquiries of them and submitted no information to the Director regarding the amendment application. I find that Pinnacle's open house and published invitation to the public to attend that event went beyond the notice and consultation requirements of the *Regulation*. The Appellant has provided no information about whether he attended the open house, if not why not, or why he made no direct enquiries of Pinnacle or the Director about the amendment application.

[100] The Appellant has not proven that there was a flaw in the EPN or consultation process. His failure to make basic enquiries and engagements in order to obtain readily available information about the amendment application, including air dispersion modelling data, was his own responsibility, and not an error in the notice or consultation process. Accordingly, I also dismiss this ground of appeal.

5. Has the Appellant proven that the Director issued the Amended Permit without proper or adequate regard for the protection of the environment?

[101] Section 16(1) of the *Environmental Management Act* authorizes the Director to amend the requirements of an emissions permit "for the protection of the

environment". The parties agree on the approach to be taken to the issuance and amendment of permits explained in *Pickford #1*, at paragraphs 180 - 183. That approach was summarized as follows in paragraph 181:

[181] The Board has also consistently held that a "cautious" approach should be adopted in assessing applications to emit waste under the *Act*: *Shawnigan* at pages 50 to 52; and, *Toews* at para. 235. At paras. 232 to 233 of *Toews*, the Board stated:

... the Panel agrees with the Board's findings in previous cases that a "cautious" approach, involving a comprehensive technical analysis of the potential harm that the proposed emission may cause to human health and the environment, should be adopted in assessing applications for permits to emit waste, and amendments to such permits, under the *EMA*. That approach was summarized in *Shawnigan* at para. 284, as follows:

... a cautious approach is not the same as a "zero tolerance" approach. The *Act* provides a legislative scheme that authorizes the introduction of waste into the environment provided that any risk to the environment can be properly controlled, ameliorated and, to the extent possible, eliminated.

[102] The Appellant contends that PM_{2.5} levels in Williams Lake already exceed government AAQOs. The reports tendered by him and the Ministry Review of Technical Assessment Report show years when smoke from severe wildfires in the region have caused PM_{2.5} levels in Williams Lake that exceed government AAQOs by large margins and pose significant risk to human health. The Appellant argues that this is the "new normal" and baseline from which the Director should have assessed the protection of the environment when considering Pinnacle's amendment application.

[103] The Appellant is correct that the Amended Permit approximately triples the total maximum particulate emissions allowed from the Pellet Plant. That multiple also applies to the PM_{2.5} component of total emissions for which maximum permitted loading has increased from 15.8 to 51.8 tonnes per year. However, I find that this information "is not useful for determining maximum ground level concentrations resulting from the operation of a facility in an airshed" (Ministry Review of Technical Assessment Report, page 1). It does not prove that the increased PM_{2.5} emissions that are expected from the modifications to the Pellet Plant pose increased risk of harm to human health and the environment.

[104] The Director's position is that neither the emissions allowed by the existing permit, nor the increased emissions allowed by the Amended Permit, contribute significantly to PM_{2.5} levels beyond the fence line. The Pellet Plant is a minor contributor to PM_{2.5} levels in the Williams Lake area now and under the Amended Permit. PM_{2.5} emissions from wildfires in the region are a periodic risk to human health in Williams Lake. But PM_{2.5} spikes from large wildfires are not related to the Pellet Plant or, in fact, any emissions-controlled activity. Furthermore, the Amended Permit will not materially add to the periodic problem of smoke from wildfires, nor will refusing to allow the Amended Permit solve or materially improve that problem.

[105] Technical assessment reports and reviews are the foundation of the QP reliance permitting process. I find that the Ministry Review of Technical Assessment Report indicates that, absent the effect of wildfires, PM_{2.5} levels in Williams Lake are below the government AAQOs. Although air dispersion modelling shows that the proposed modifications to the Pellet Plant may result in exceedances at the fence line of the property, RWDI's reports and the Ministry's reviews of those reports indicate that those maximum levels are likely overestimated, they will decay rapidly with distance, and there is no indication of exceedances in sensitive receptor zones. These conclusions are consistent with Intrinsik's assessment that the amendment application posed low risk of harm to human health.

[106] I find that the Director's position on this appeal is supported by the technical assessment reports and reviews that were before him, and the Appellant has not discharged his burden of proving that issuance of the Amended Permit fails to give proper or adequate regard for the protection of the environment. Overall, I find that the Director took a cautious approach when considering existing air quality measurements, air dispersion modelling reports and evaluations from qualified professionals indicating that the Amended Permit will not result in PM_{2.5} exceedances (except at the property fence line and diminishing rapidly beyond that) or materially add to PM_{2.5} exceedances caused by wildfire events. The Director had before him comprehensive technical analyses of the potential harm that the proposed modifications and increased particulate emissions may cause to human health and the environment. Those materials provided a proper basis for granting the Amended Permit. The Appellant has not provided evidence countering them.

[107] I note that the Board rejected a similar argument, on different facts, in *Pickford #1*, at paragraphs 192-200.

[108] The Appellant is correct that extreme wildfire seasons in the region cause significant exceedances of the government AAQOs for PM_{2.5} in Williams Lake. However, this is not contentious and does not prove the merits of his appeal of the Amended Permit. The Appellant has not established that the Amended Permit will be a significant factor in PM_{2.5} levels in Williams Lake during such wildfire-caused spikes or at all. The evidence is in fact to the contrary.

[109] I will also address the Appellant's contention that increased PM_{2.5} emissions under the Amended Permit will include increased VOCs. It is true that RWDI and the Ministry Review of Technical Assessment Report did not discuss VOCs. However, the Director did so in his reasons, stating:

In making this decision, I took into consideration the EnvironChem report "Emissions and Air Pollution Controls for the Biomass Pellet Manufacturing Industry" which was previously accepted by the EAB in Decision No. 2017-EMA-011(b) in an appeal of a single pass drier at Lavington, BC. The EnvironChem report identified 175° C as the critical temperature at which VOC generation rapidly increases. The temperatures associated with the drier in Williams Lake are expected to be well below 175° C VOC generation temperature and close to the 55° C of the Lavington Drier.

[110] The Director was entitled to weigh the considerations and reach the conclusion that he did about VOCs. The Appellant contends that the Director's fact-

finding and conclusion were wrong, but he did not provide evidence to establish that.

[111] For these reasons, I conclude that the Appellant has not proven that the Director issued the Amended Permit without proper or adequate regard for the protection of the environment. I therefore also dismiss this part of the appeal.

6. Has the Appellant proven that the monitoring conditions in section 3.4 of the Amended Permit are flawed?

[112] The source monitoring conditions in section 3.4 of the Amended Permit operate in conjunction with the noncompliance reporting conditions in section 5. Together, they require the following source monitoring:

- Testing of the baghouse stack annually, not less than 9 months apart or as approved by the Director. If a test result exceeds the authorized limit, the Director must be notified and retesting must be done. If the re-test exceeds the limits, then discharge from the stack must stop until the problem has been corrected, unless authorized by the Director. Following corrective action, there must be a third confirmation test. Only after two consecutive successful tests, Pinnacle may request a reduction in frequency or discontinuance of the testing.
- Testing of the wet venturi scrubber stack and the biomass belt dryer stacks every three months for a year. If a test result exceeds the authorized limit, the Director must be notified and retesting must be done. If the retest exceeds the limits, then discharge from the stack must stop until the problem has been corrected, unless authorized by the Director. Following corrective action, there must be a third confirmation test and testing resumes every three months for 12 consecutive months. Only after four consecutive successful tests, Pinnacle may request a reduction in frequency or discontinuance of the testing.

[113] The Appellant requests more frequent source monitoring and no option for Pinnacle to request reduced frequency or discontinuance of testing. I find that he has neither provided evidence that these changes are needed, nor proven that the source monitoring conditions in the Amended Permit are flawed. He asserts that the monitoring is inadequate due to the danger that particulate emissions pose to human health, but he has not demonstrated that by providing any convincing evidence or argument.

[114] I also find that the monitoring conditions, on their face, are not as lenient as the Appellant suggests. The conditions contemplate not only the possibility of less frequent testing if successful results justify that. They also impose additional requirements if a test result exceeds the permitted limits: Pinnacle must notify the Director, conduct a retest within 30 days of the failed test, and the Director may provide additional direction on follow-up testing. If the retest still shows an exceedance, Pinnacle must take corrective action, shut down the noncompliant emission source, and conduct a confirmation test.

[115] Furthermore, the Director has authority under section 16(4) of the *Environmental Management Act* to amend a permit on his own initiative if that is

"necessary for the protection of the environment". The Director could exercise this power if, for example, concerning source or ambient air quality results necessitated different, more frequent and continuing source monitoring.

[116] For these reasons, I also dismiss this part of the appeal.

DECISION AND ORDER

[117] In making this decision, I have fully considered all of the evidence and submissions made, whether or not specifically referred to in this decision.

[118] Based upon my findings, I order pursuant to section 103 of the *Environmental Management Act* that the Amended Permit is confirmed.

[119] The appeal is dismissed.

"Susan E. Ross"

Susan E. Ross, Panel Chair
Environmental Appeal Board

September 11, 2020