

ALBERTA ENVIRONMENTAL APPEALS BOARD

Report and Recommendations

Date of Report and Recommendations – March 5, 2021

IN THE MATTER OF sections 91, 94, 95, and 99 of the *Environmental Protection and Enhancement Act*, R.S.A. 2000, c. E-12;

-and-

IN THE MATTER OF an appeal filed by Diana Calder of Amending Approval No. 18701-02-01 issued by the Director, South Saskatchewan Region, Operations Division, Alberta Environment and Parks to the Crowsnest/Pincher Creek Landfill Association.

Cite as: *Calder v. Director, South Saskatchewan Region, Operations Division, Alberta Environment and Parks, re: Crowsnest/Pincher Creek Landfill Association (5 March 2021)*, Appeal No. 18-011-R (A.E.A.B.), 2021 ABEAB 5.

WRITTEN HEARING BEFORE:

Ms. Line Lacasse, Panel Chair;
Dr. Brenda Ballachey, Board Member; and
Mr. Kurtis Averill, Board Member.

SUBMISSIONS BY:

Appellant: Ms. Diana Calder.

Approval Holder: Crowsnest/Pincher Creek Landfill Association, represented by Mr. Emile Saindon, Crowsnest/Pincher Creek Landfill Association, and Stephanie Demers and Tanya Cairns, Integrated Sustainability Consultants Ltd.

Director: Ms. Kathleen Murphy, Director, South Saskatchewan Region, Operations Division, Alberta Environment and Parks, represented by Ms. Alison Altmiks, Alberta Justice and Solicitor General.

EXECUTIVE SUMMARY

The Director, South Saskatchewan Region, Operations Division, Alberta Environment and Parks (the Director) issued an Amending Approval to Crowsnest Pass/Pincher Creek Landfill Association (CNPC) for the construction and operation of an incinerator at a landfill near the Village of Cowley.

Ms. Diana Calder filed an appeal with the Environmental Appeals Board (the Board) of the Director's decision to issue the Amending Approval.

The Board held a written hearing. It received and reviewed written submissions and reviewed the Director's Record on the following issues:

1. Does the Approval Holder have an effective Communications Plan in place to address any concerns or issues of local residents if the incinerator commences operations?
2. Was the Director's decision to issue an Amending Approval to allow the construction and operation of an incinerator at the Crowsnest/Pincher Creek Landfill appropriate?
3. Are the terms and conditions of the Amending Approval, with respect to the incinerator, appropriate?

The Board determined the Director's decision to issue the Amending Approval to allow the construction and operation of an incinerator, and the terms and conditions of the Amending Approval, were appropriate. However, the Board found CNPC did not have an effective Communications Plan in place to address local residents' concerns.

The Board recommended the Minister of Environment and Parks vary the terms and conditions of the Amending Approval to require CNPC to develop and implement an effective Communications Plan to address concerns of local residents. This Communications Plan should include an Emergency Plan.

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I. INTRODUCTION

[1] This is the Report and Recommendations of the Environmental Appeals Board (the “Board”) to the Minister of Environment and Parks (the “Minister”), regarding the appeal by Ms. Diana Calder (the “Appellant”) of Amending Approval No. 18701-02-01 (the “Amending Approval”). The Amending Approval was issued by the Director, South Saskatchewan Region, Operations Division, Alberta Environment and Parks (the “Director”) to Crowsnest/Pincher Creek Landfill Association (“CNPC” or “Approval Holder”) for the addition of an incinerator to the operations of the Crowsnest/Pincher Creek Class II Landfill (the “Landfill”). The Appellant is concerned the Amending Approval, and more specifically, the operation of the incinerator, will cause harm to the environment and human health.

II. BACKGROUND

[2] On December 14, 2016, Alberta Environment and Parks (“AEP”) issued Approval No. 18701-02-00 (the “Approval”) under the *Environmental Protection and Enhancement Act*, R.S.A. 2000, c. E-12 (“EPEA”), to CNPC for the operation, and reclamation of the Landfill located at W½ -2-8-7-1-W4M, in the Municipal District of Pincher Creek No. 9.¹

[3] On January 31, 2017, CNPC applied to AEP for the Amending Approval allowing the Landfill to process more than 10 tonnes per month of non-hazardous waste through thermal treatment with an incinerator (the “Amendment Application”).² The Amendment Application was prepared by CNPC’s consultant, Integrated Sustainability Consultants Ltd., and included an air quality assessment (the “Air Quality Report”) conducted by North Shore Environmental Consultants (“North Shore”).

[4] On June 21, 2017, AEP published a “Notice of the Application” in two local newspapers, the Pincher Creek Echo and the Crowsnest Pass Herald. The Notice of the Application

¹ Director’s Record, at Tab 8.

provided information on how members of the public could file a Statement of Concern (“SOC”).³ Between July 11 and July 27, 2017, AEP received fourteen SOCs. The Appellant was one of the SOC filers.

[5] On September 18, 2017, AEP advised each of the fourteen SOC filers that the Director had accepted their SOCs.

[6] On October 16, 2017, AEP sent a letter to CNPC requesting further information to assist in AEP’s review of the Amendment Application. The information requested included technical information on the operation of the incinerator, a waste management plan to prevent combustion of recyclable plastics, and the stack sampling reports and data CNPC used to develop mass emission rates for the air dispersion modelling in the Amendment Application.⁴

[7] On January 31, 2018, CNPC contacted each of the SOC filers to address concerns identified in the SOCs. On March 12, 2018, CNPC sent further correspondence to the fourteen SOC filers and invited them to participate in a meeting.

[8] On March 14, 2018, AEP again requested further information from CNPC, including information on measures to be taken to eliminate dense smoke from the incinerator stack, the manufacturer’s technical specifications for the natural gas burners, and what indicators would be used to determine whether to turn off the secondary chamber burners.

[9] On April 17, 2018, CNPC wrote to the SOC filers to further address the concerns.

[10] On July 23, 2018, the Director issued the Amending Approval.

[11] On August 20, 2018, the Board received a Notice of Appeal from the Appellant. On August 22, 2018, the Board wrote to the Appellant, CNPC, and the Director and

² Director’s Record, at Tab 10.

³ Section 44(6) of EPEA provides:

“Any person who is directly affected by a proposed activity that is the subject of a decision of the Director under subsection (1)(b)(i) may, within 30 days after the last notice under subsection (5) or within any longer period allowed by the Director in the notice, submit a written statement of concern to the Director setting out the person’s concerns with respect to the proposed activity.”

⁴ Director’s Record, at Tab 17.

acknowledged receipt of the Notice of Appeal and requested the Director provide a copy of the Director's Record (all documents and all electronic media) she reviewed and that were available to her when making the decision to issue the Amending Approval, including policy documents and an index.

[12] On August 22, 2018, the Board received a Notice of Appeal from the Town of Pincher Creek (the "Town").

[13] On October 31, 2018, the Director provided the Director's Record to the Board. On November 2, 2018, the Board forwarded a USB containing the Director's Record to the Appellant, the Town, CNPC, and the Director (the "Initial Parties"). On November 13, 2018, the Director provided a Supplemental Director's Record and replacement tabs for the Director's Record.

[14] On December 6, 2018, the Board scheduled a mediation meeting for January 22, 2019, in Pincher Creek, Alberta.

[15] On January 12, 2019, the Board wrote to the Initial Parties and explained it had become aware the Supplemental Director's Record and the replacement tabs had not been sent to the Parties. The Board wrote: "The documents are being provided electronically (email) and a hardcopy will be sent to Ms. Calder. The Board apologizes for the oversight and delay in providing to the parties."⁵

[16] On January 22, 2019, the Initial Parties met in a mediation meeting. An interim mediation agreement was reached and the mediation was adjourned while the Initial Parties continued discussions.

[17] On April 12, 2019, the Town advised the Board the Pincher Creek Town Council passed a resolution directing the Town to withdraw the Town's appeal of the Amending

⁵ Letter from the Board, January 12, 2019.

Approval. On April 17, 2019, the Board discontinued its proceedings in the Town's appeal (No. 18-012) and closed its file.

[18] A second mediation meeting was scheduled for October 28, 2019, in Lethbridge, Alberta. However, on the day of the mediation meeting the Appellant was unable to travel to Lethbridge due to weather conditions.

[19] On April 1, 2020, the Board issued a Decision⁶ that set the issues for the hearing of the appeal and stated the hearing would be held by written submission due to the COVID-19 pandemic.

[20] On April 22, 2020, the Board published a Notice of Hearing in the Crowsnest Pass Herald and the Pincher Creek Echo, and a deadline of May 11, 2020, was given for applications from other persons who wanted to make representations before the Board. The Board received applications from the following:

- (a) Mr. Duane DeCock and Ms. Lynne DeCock, on May 5, 2020;
- (b) Ms. Ianthe Goodfellow, on May 9, 2020; and
- (c) Ms. Andrea Beck and Mr. Marcus Beck, on May 10, 2020.

[21] The Board provided an opportunity for the Appellant, CNPC, and the Director (the "Parties") to comment on the three requests for intervention (collectively, the "Intervenor Requests"). After reviewing the Intervenor Requests and comments from the Parties, the Board determined the Intervenor Requests did not meet the requirements of Rule 14 of the Board's Rules of Practice.⁷

[22] On August 26, 2020, the Board received the Appellant's written submission. The Board redacted parts of the submission that referred to confidential matters from the mediation

⁶ See: *Calder v. Director, South Saskatchewan Region, Operations Division, Alberta Environment and Parks, re: Crowsnest/Pincher Creek Landfill Association* (1 April 2020), Appeal No. 18-011-DL1 (A.E.A.B.), 2020 ABEAB 13.

⁷ See: Letter from the Board, June 11, 2020.

meeting. On September 28 and 29, 2020, the Board received the Director's and CNPC's written response submissions. On October 30, 2020, the Board received the rebuttal submission from the Appellant.

[23] The Panel appointed to hear the appeal (the "Panel") met on November 3, 2020, and after discussion, had three questions for the Parties as follows:

"Question 1: The Board would like clarification regarding the monitoring required under the Approval and the Amending Approval. What monitoring is required with respect to the landfill under the Approval? What additional monitoring is required with respect to the incinerator under the Amending Approval?

Question 2: The Board would like clarification regarding Issues 3(d) and (e), which provided: 'Are the terms and conditions of the Amending Approval, with respect to the incinerator, appropriate? This includes: ... (d) baseline sampling of soils and water in the area prior to the incinerator becoming operational;' and (e) 'regular sampling of soils and water in the area during the operation of the incinerator'... Please explain, and confirm whether baseline sampling of soil and water will be conducted prior to the incinerator becoming operational and whether regular sampling of soils and water will be conducted during the operation of the incinerator?...

Question 3: The Board would like clarification on the effect of the percentage of plastic burned in the incinerator and the effect on emissions."

[24] On December 11, 2020, the Parties provided their responses to the Board's questions. On January 15, 2021, the Parties provided comments to the responses to the Board's questions. The Board met on February 5, 2021, to consider the answers to the questions, determine the recommendations for the Minister, and close the hearing.

III. ISSUES

[25] On April 1, 2020, the Board set the following issues for the hearing of the appeal:

1. Does the Approval Holder have an effective Communications Plan in place to address any concerns or issues of local residents if the incinerator commences operations?

2. Was the Director's decision to issue an Amending Approval to allow the construction and operation of an incinerator at the Crowsnest/Pincher Creek Landfill appropriate? This includes:
 - (a) whether the wind data used for the air dispersion modelling was appropriate;
 - (b) whether the Director properly considered the potential impact of the incinerator on water in the Oldman River Dam Reservoir (the "Reservoir"); and
 - (c) whether the Director properly considered the potential impact of burning plastics in the incinerator on the local environment, including local residents.
3. Are the terms and conditions of the Amending Approval, with respect to the incinerator, appropriate? This includes:
 - (a) the use of appropriate pollution control equipment;
 - (b) the operation of the incinerator during high winds;
 - (c) notice to local landowners during emergency shut downs;
 - (d) baseline sampling of soils and water in the area prior to the incinerator becoming operational;
 - (e) regular sampling of soils and water in the area during the operation of the incinerator;
 - (f) notice to the public of sampling results;
 - (g) a response plan in the event contamination is found in the area surrounding the incinerator; and
 - (h) sufficient conditions to ensure compliance with the Approvals.

IV. PRELIMINARY MATTERS

A. Confidentiality

[26] On December 10, 2019, the Board received a letter from the Appellant dated December 6, 2019, which referenced discussions that took place at the mediation meeting. In a letter dated December 13, 2019, the Board advised the Parties that these references were in breach of the confidentiality clause of the Participant's Agreement to Mediate, which was signed

by all Initial Parties at the mediation meeting. Item 4 of the Participants' Agreement to Mediate states:

“All communications made to or through the Mediator and EAB staff who attend the mediation shall be confidential and without prejudice to the position of a Participant in any further proceedings. This means that communications exchanged during this mediation can only be raised in subsequent Environmental Appeals Board proceedings or court proceedings with the written consent of all Participants.”

The Board advised the Parties it would place a copy of the Appellant's letter on its mediation file, and place a redacted version of the letter on the Board's public file.

[27] On August 26, 2020, the Board received the Appellant's written submission and noted the Appellant again referenced confidential matters from the mediation meeting. The Board redacted the submission where it referred to such matters.

[28] On October 6, 2020, the Appellant wrote to the Board to express concern regarding the redactions of her written submission. The Appellant said: “[The Board's] claim that anything mentioned or discussed at the Mediation meeting is completely out of bounds because anything discussed at the mediation meeting or afterwards is not allowed to be used in any way is wrong.” The Appellant noted the Participants' Agreement to Mediate, signed by the Parties before the mediation meeting, stated: “Confidentiality does not apply to the documents, records, materials or other correspondence provided to the EAB with respect to the main part of the appeal even if they are used in the context of the mediation.”⁸

[29] On October 13, 2020, the Board responded to the Appellant's concerns. The Board noted the quote referred to by the Appellant from the Participants' Agreement to Mediate was not applicable to the concern raised by the Board that the redacted sections of the Appellant's written submission referred to confidential matters from the mediation meeting. The Board explained it had issue with the Tetratech Technical Memo, dated February 15, 2019 (the

⁸ Appellant's letter, October 6, 2020.

“Tetrattech Report”), which was expressly written for the Town to support proposed changes that were to be circulated to the Initial Parties under the interim agreement reached in the mediation meeting. The Board said the Tetrattech Report included a settlement proposal of proposed amendments to the Amending Approval, and as such, it was confidential. The Board noted the Tetrattech Report was not included with the main part of the appeal. The Board observed that the final decision maker with regard to the redactions was the Panel.

[30] On October 13, 2020, the Board received a letter from the Appellant dated September 24, 2020. The Appellant stated the mediation confidentiality was waived for technical merits, “which the changes to the Amending Approval were all about.”⁹

[31] On October 14, 2020, the Board responded and stated:

“Notwithstanding the Board standard set of instructions regarding confidential information that is brought forth from a mediation, the final decision-maker as to what is appropriate to redact will be the panel hearing the appeal... The hearing panel can override the Board standard set of instructions. The hearing panel [will be] presented with your objections, and if they agree with you, unredacted versions of your letters will be provided to them to consider.”¹⁰

[32] The Panel considered the matter of confidentiality and the redaction of the Appellant’s submission. The Panel found that confidentiality is an essential element of mediation. Mediation is an opportunity for participants to explore possible solutions and confidentiality encourages open discussion without participants being guarded due to fear that something they say could be used against them later.

[33] The Panel found the Tetrattech Report was prepared as a proposal of settlement and was part of the mediation process. As such, the Tetrattech Report was confidential and the Board was correct to redact references to it, including redactions made in the Appellant’s

⁹ Appellant’s letter, September 24, 2020.

¹⁰ Board’s letter, October 14, 2020.

submission. The Panel concluded the Tetrattech Report would not be considered in the hearing of the appeal.

B. Additional Records

[34] On June 8, 2020, the Board received a letter from the Appellant dated June 5, 2020, which claimed the Board had not provided her all of the information it had possession of. The Board responded in a letter on June 11, 2020, and stated:

“Ms. Calder indicates that she has not been provided with all of the information in the possession of the Board in this appeal. Respectfully, this statement is incorrect. The Board has been diligent in providing all of the parties with copies of all of the information in the possession of the Board that will be considered when deciding this appeal. The only exclusion is the mediation file that contains privileged information related to the mediation. This is the Board's consistent practice. Due to the size of the file, if Ms. Calder wishes to receive a USB of the file, she should make a request.”¹¹

[35] On June 22, 2020, the Appellant wrote to the Board and informed it that she did not have access to a computer and a USB of the file was not helpful to her. On June 24, 2020, the Board responded that it was unaware the Appellant did not have a computer. The Board noted that on November 2, 2018, the Board provided the Initial Parties with a USB of the Director's Record, and if a party wished to receive a hard copy, they were to advise the Board. The Board stated its file did not indicate that the Appellant had requested a hard copy of the first Director's Record, but the Board was now sending a hard copy to her with the June 24, 2020 letter.

[36] On October 15, 2020, the Appellant wrote to the Board and stated she had asked for “the original application for the Industrial Approval Application.”¹² The Board wrote to the

¹¹ Board's letter, June 11, 2020.

¹² Appellant's letter, October 15, 2020.

Appellant on October 21, 2020, and stated it had reviewed all the documents received from AEP and it did not have the Industrial Approval Application.¹³

[37] On October 25, 2020, the Board received a letter from the Appellant dated October 23, 2020. In the letter the Appellant stated “I can only assume I am also refused the Industrial Application.”¹⁴ On October 27, 2020, the Board responded to the Appellant’s letter and advised it had not refused her request for the initial Industrial Approval Application. The Board explained it was separate and apart from Alberta Environment and Parks, and did not have a copy of the document. The Board advised that the Appellant could request a copy of the initial Industrial Approval Application from the CNPC or from AEP.

[38] The Panel reviewed the Board’s responses to the Appellant’s concerns that information had been withheld from her. The Panel noted the Board provided the Appellant with the Director’s Record, the Supplemental Record and two replacement tabs for the Director’s Record, which the Director provided to the Board. The Panel also found the Board provided the Appellant with copies of all correspondence received from the Director and CNPC. The Panel found that while miscommunication regarding the Board’s provision of a USB of the file was unfortunate, there was no attempt by the Board to withhold any documentation from the Appellant. The Panel concluded the Board provided all the information and documents it had regarding the appeal, and that the Appellant had this information in preparation for the written hearing.

V. SUBMISSIONS

A. Appellant

[39] The Appellant stated the Board is only considering the Director’s Record, which

¹³ Board's letter, October 21, 2020.

¹⁴ Appellant’s letter, October 23, 2020.

included the 2017 Air Quality Report by North Shore. The Appellant submitted the Air Quality Report should be discarded as North Shore was building the proposed incinerator and had a vested interest in the project.

[40] The Appellant stated the Air Quality Report was not mentioned in the Director's Record, and was "hidden" in a USB stick, which the Appellant had no way to find or even be aware of its existence.

[41] The Appellant submitted there were three options to consider:

- “1. Require an environmental impact assessment under Section 47 of the Environmental Protection and Enhancement Act, through a Ministerial Order.
2. Keep the amendment application on its current course in the regulatory process. This preserves the sense of regulatory certainty afforded to the proponent throughout the process.
3. Pursue an order in council to prescribe the project for review by the Natural Resources Conservation Board, which has the broad power to compel any information necessary to make an independent public interest determination.”¹⁵

[42] The Appellant noted the Minister decided on option two. The Appellant also noted there had not been a public meeting as of July, 2020.

[43] The Appellant stated there was inconsistency on the information regarding the percentage of recycled plastic that can be burned in the incinerator. The Appellant said at the public open house North Shore indicated the percentage was 20 percent, while the Landfill's manager claimed the incinerator could burn 17 percent. The Appellant said North Shore also suggested the amount was 30 percent. The Appellant noted the Amending Approval and the Industrial Approval states only four percent plastic is permitted to be incinerated. The Appellant stated the amount of plastic allowed to be incinerated would make a large difference in the emissions.

¹⁵ Appellant's Initial Submissions, August 26, 2020, at page 3.

[44] The Appellant said that as dead animals are not accepted at the Landfill, there was no need for an incinerator to burn them. The Appellant stated the weight amounts of animal carcasses accepted by the Landfill as reported by the CNPC are incorrect because the carcasses were not separated from other items when the load was weighed.

[45] The Appellant submitted evidence provided by Dr. Paul Connet, who spoke to the Pincher Creek Town Council about the dangers of incineration, and to a public meeting at the community hall in Cowley, has been ignored.

[46] The Appellant said the Air Quality Report contained several errors and omissions, including:

- (a) claiming the wind was coming from the northeast, whereas the area is famous for extreme wind coming from the Southwest and going east or northeast;
- (b) failing to show the Reservoir or the Oldman Dam in the 14 maps of the Landfill and surrounding area;
- (c) not planning for water monitoring despite the Reservoir and the Village of Cowley being in the direct path of wind flowing from the Landfill and the proposed incinerator;
- (d) applying wind statistics from Ontario to the local situation; and
- (e) using data that is not applicable to batch incineration.

[47] The Appellant submitted the project was “poorly thought out and very poorly implemented.”¹⁶ The Appellant stated there is no evidence or need for an incinerator to be installed at the location which is in an environmentally sensitive area. The Appellant expressed concern that an environmental assessment was denied and that there has been no “proper and open public meetings.”¹⁷ The Appellant submitted the incinerator was “unethical, detrimental, and inexplicable,”¹⁸ and the Amending Approval for the incinerator should be rescinded.

¹⁶ Appellant’s Submission, August 26, 2020, at page 11.

¹⁷ Appellant’s Submission, August 26, 2020, at page 11.

¹⁸ Appellant’s Submission, August 26, 2020, at page 11.

B. CNPC

[48] CNPC's submission was organized to respond to the issues set by the Board in its April 1, 2020 letter.

Issue 1: Does the Amending Approval Holder have an effective Communications Plan in place to address any concerns or issues of local residents if the incinerator commences operations?

[49] CNPC noted it is obligated to record and report public concerns to AEP. CNPC stated it has a preliminary Communications Plan for use by its staff. CNPC said it will develop a management program for odours originating from the incinerator's operation, as required by the Amending Approval.

Issue 2: Was the Director's decision to issue an amending approval to allow the construction and operation of an incinerator at the Crowsnest/Pincher Creek Landfill appropriate?

[50] CNPC stated its approval application met the requirements of AEP's regulatory framework, and was supported by scientific analysis. CNPC noted North Shore was not the manufacturer or builder of the incinerator.

[51] CNPC submitted that the wind data was appropriate. CNPC said it followed the AEP Air Quality Model Guideline ("AQMG")¹⁹ and used the data generated by Environment Canada and approved by AEP.

[52] CNPC stated the dispersion modelling assessment for the potential impacts of the incinerator was set at a higher standard than required by the AQMG. CNPC stated the maximum concentrations are predicted to be located within the Landfill's fence line, and there would be no

¹⁹ Air Quality Model Guideline, 2013, found at the Director's Record, Tab 146, which provides: "This guideline provides detailed guidance on suitable methods and approaches that should be used to assess air quality from emission sources. It sets out the statutory authority, an overview of the approach, guidance on appropriate technical methods and the information required to demonstrate that a source meets the Alberta Ambient Air Quality Objectives. It is not intended to

long range effects from incineration activities. CNPC noted the west arm of the Reservoir is approximately 5.2 kilometres north of the incinerator, and the south arm of the Reservoir is approximately 5.0 kilometres east of the incinerator. CNPC submitted there would be no air quality impacts at the Landfill, let alone at the Reservoir.

[53] CNPC stated the Director properly considered the potential impact of burning plastics in the incinerator. CNPC noted it was required to conduct an air quality assessment and provide typical expected stack emissions data for its Amendment Application, which the Director reviewed. CNPC stated air emissions release limits are included in the Amending Approval.

Issue 3: Are the terms and conditions of the Amending Approval, with respect to the incinerator, appropriate?

[54] CNPC submitted the terms and conditions were appropriate.

[55] CNPC said the incinerator was designed to meet and exceed environmental standards without requiring pollution controls. CNPC stated the “maximum, worst-case dispersion modelling scenario from the incinerator was determined by a combination of stack tests and calculations applied to various waste mixes.”²⁰ CNPC noted the results of the dispersion modelling were compared to air quality standards from Alberta, Ontario, and Canada, and showed that maximum ground level concentration (“MGLC”) were predicted to be well within the applied standards. CNPC stated the Amending Approval contained several clauses to ensure all contaminants from the incinerator would be within the applied standards, including rigorous monitoring requirements.

[56] CNPC stated dispersion modelling was conducted using standard meteorological data from AEP, which included five years of windspeed data for the location. CNPC said the

provide a technical description of the theory behind air quality modelling - such information is widely available in other published documents, and references are provided within the text.”

²⁰ CNPC’s Response Submission, September 28, 2020, at page 5.

maximum ground-level concentrations of all contaminants emitted from the incinerator were expected to be well within the applied standards. CNPC noted the Amending Approval included clauses to ensure the incinerator's emissions are kept within the applied standards during all wind scenarios, including high winds.

[57] CNPC stated:

“In the event of an Emergency CNPC will notify applicable parties which, depending on the event may include: the Landfill Manager, Fire Department, Ambulance, RCMP, Energy and Environment Emergency Response Line, AEP or Occupational Health and Safety.”²¹

CNPC said it would follow its Communications Plan to provide notice to local landowners if required.

[58] CNPC noted the Amending Approval required that sampling would be done in accordance with the following:

- (a) Soil Monitoring Directive, Alberta Environment, May 2009;²²
- (b) Soil Quality Criteria Relative to Disturbance and Reclamation, Alberta Agriculture, March 1987;²³ and
- (c) *Standard Methods for the Examination of Water and Wastewater*, American Public Health Association, American Water Works Association, and the Water Environment Federation, 2012.²⁴

CNPC stated an operational soil monitoring program would be developed and implemented before the incinerator was built.

[59] CNPC noted the Amending Approval did not require public notice of sampling results, and it is not industry practice in Alberta to provide such results to the public.

²¹ CNPC's Response Submission, September 28, 2020, at page 6.

²² *Soil Monitoring Directive*, May, 2009, <<https://open.alberta.ca/dataset/9780778581208>>.

²³ Soil Quality Criteria Relative to Disturbance and Reclamation, Alberta Agriculture, March 1987, <https://open.alberta.ca/publications/soil-quality-criteria-relative-to-disturbance-and-reclamation>

²⁴ Eugene W. Rice, Andrew D. Eaton, and Lenore S. Clescen, editors, *Standard Methods for the Examination of Water and Wastewater*, 22nd ed (American Public Health Association, American Water Works Association, and

[60] CNPC stated a response plan has been developed in the event of a spill with potential for contamination.

[61] CNPC submitted it has operated since 1976 as a Class II landfill in a safe and responsible manner and has met all reporting requirements for its approvals under EPEA. CNPC said it would continue to comply with conditions associated with EPEA Approvals.

C. Director

[62] The Director's submission was organized to address the issues set by the Board.

Issue 1: Does the Approval Holder have an effective Communications Plan in place to address any concerns or issues of local residents if the incinerator commences operations?

[63] The Director stated the Amending Approval requires CNPC to complete an Operations Manual, which would include a procedure to address odours and respond to related public complaints, and have incinerator emergency shutdown procedures and emergency contact services information. The Director noted CNPC must review the Operations Plan monthly and update it when necessary.

Issue 2: Was the Director's decision to issue an amending approval to allow the construction and operation of an incinerator at the Crowsnest/Pincher Creek Landfill appropriate?

[64] The Director said that where air emissions will occur, applications under the EPEA for approval or amendment must follow the *Industrial Release Limits Policy*²⁵ and the AQMG, which required air dispersion modelling. The Director stated the modelling included:

- (a) emission rate;
- (b) characteristics of the emission source;

Water Environment Federation, 2012).

²⁵ *Industrial Release Limits Policy*, Alberta Environment and Parks, 2016, found at the Director's Record, Tab 144.

- (c) local topography;
- (d) meteorology of the area;
- (e) the location, height and width of any obstruction; and
- (f) cumulative effects of nearby emission sources for the pollutant of concern within five kilometers of the facility.

[65] The Director stated that as there was no local data available, the Amendment Application used five years of meteorological data from the Lethbridge continuous air monitoring station, which was the closest available air monitoring data set. The Director submitted the use of the Lethbridge data was a conservative approach as there were more industrial sources and vehicle emissions present in the Lethbridge data. The Director said use of the Lethbridge data resulted in improved standards for the incinerator, including the allowable limits for MGLC. The Director noted the modelling showed the MGLC were very low and there were no predicted exceedances. The Director observed that the MGLC would occur within the Landfill boundaries and not offsite.

[66] The Director said the wind data (wind rose) showed the wind direction and speed to be coming from the west and southwest. The Director submitted the Appellant's statement that the Air Quality Report claimed the wind was coming from the northeast, appeared to be based on a misinterpretation of the wind rose.

[67] The Director submitted the emissions "from the incinerator should have no offsite impacts, including to the water in the Reservoir located approximately 4.7 km north of the landfill."²⁶ The Director noted the emissions were predicted to be so low that a study was not required, particularly as the Reservoir is outside the air dispersion study area.

[68] The Director noted liquid generated from animal carcass disposal is the only anticipated potential wastewater stream from the incinerator, and that liquid is required to be incinerated. The Director said the Amending Approval requires an inside location for animal carcasses and the incinerator, which would prevent leakage of liquids into the environment.

[69] The Director stated the Amending Approval reduced any potential impact of burning plastics in the incinerator by:

- (a) restricting the type of plastic waste that can be incinerated;
- (b) requiring CNPC to weigh the waste before incineration; and
- (c) limiting the amount of agricultural waste per batch.

The Director said the Amending Approval also set operational requirements that addressed the potential impact of burning plastics in the incinerator.

Issue 3: Are the terms and conditions of the Amending Approval, with respect to the incinerator, appropriate?

[70] The Director submitted additional pollution control equipment was not a requirement of the Amending Approval because:

- (a) the modelling predicted in very low ground level concentrations of pollutants;
- (b) some pollution control equipment would require undesired changes to the operational procedures; and
- (c) emissions are controlled through the Amending Approval's terms.

[71] The Director stated:

“The Amendment conditions set requirements for operation, monitoring, reporting and maintenance of the secondary chamber of the incinerator to ensure the best level of combustion control. Combustion control is the most effective method to reduce emissions of dioxins, furans, VOCs and carbon monoxide.”²⁷

[72] The Director stated the Amending Approval did not limit the incinerator's operations due to wind speed or direction as the Director determined high winds would increase dispersion in the atmosphere and likely lower ground level concentration of substances. The Director noted the Amending Approval required animal carcasses and the incinerator to be housed inside a building, meaning that high winds would not impact incinerator operations.

²⁶ Director's Response Submission, September 29, 2020, at paragraph 71.

²⁷ Director's Response Submission, September 29, 2020, at paragraph 104.

[73] The Director acknowledged there is no obligation for CNPC to notify local landowners during emergency shut downs. The Director said CNPC is required to develop an emergency shut down procedure and have contact information for emergency services in the Operations Manual. The Director stated CNPC would notify local landowners if directed to do so by authorities.

[74] The Director submitted baseline sampling of soil and water were not required because:

- (a) wastewater from the incinerator is not permitted to be released into the surrounding watershed and soil;
- (b) liquid from animal carcass management is the only wastewater anticipated from the incinerator, which is required to be incinerated; and
- (c) runoff will not be generated from the incinerator as it will be housed inside a building.

[75] The Director stated:

“Given the low predicted emissions and location of the MGLCs within the landfill boundary, resulting from the effective control and minimization at the emission source, there is no technical or scientific rationale for conditions requiring offsite monitoring and reporting.”²⁸

[76] The Director submitted public notice of sampling results is not required because sampling results are available under routine disclosure from AEP or CNPC.

[77] The Director said the incinerator is not expected to cause contamination. Air dispersion modelling predicted ground level concentrations to be well below accepted standards. The Director also noted the Approval contained groundwater management conditions, including requirements for monitoring, sampling, reporting and remediation.

[78] The Director stated CNPC is required to follow conditions in the Amending Approval and the Approval and to immediately report any contraventions. The Director noted

²⁸ Director’s Response Submission, September 29, 2020, at paragraph 126.

AEP's compliance assurance program uses "education, prevention and enforcement to ensure compliance with EPEA," and "includes inspections and monitoring."²⁹

[79] The Director concluded as follows:

"In the application, CNPC's air dispersion modelling results for the incinerator showed the maximum ground level concentrations for all substances modelled would be far below the respective air quality standards; and that the maximum ground level concentrations would occur within the landfill's property boundary.

The wind data used for the air dispersion modelling was appropriate, and in accordance with AEP's application and policy requirements.

The emission limits in the Amendment are based on achievable technology limits, as it is the more stringent approach. The air dispersion model's predicted air emissions are far below the applicable air quality standards; for many substances the predicted concentrations are also lower than the background levels.

Limits based on achievable technology require the use of the most effective demonstrated pollution prevention and control technologies. The release limits establish a level playing field among similar industrial facilities.

Additional pollution control equipment is not specified in the Amendment as CNPC is required to meet emission limits; CNPC's application demonstrated they will achieve this through sorting and managing waste, operating the incinerator in the specified manner, and monitoring and reporting.

Given the low predicted emissions and location of the maximum ground level concentrations within the landfill boundary, resulting from the effective control and minimization at the emission source, there is no technical or scientific rationale for additional conditions requiring offsite monitoring and reporting."³⁰

[80] The Director submitted the decision to issue the Amending Approval for construction and operation of the incinerator at the Landfill was appropriate and the terms and conditions were appropriate. The Director requested the Director's decision to issue the Amending Approval be confirmed.

²⁹ Director's Response Submission, September 29, 2020, at paragraph 136.

³⁰ Director's Response Submission, September 29, 2020, at paragraphs 139 to 144.

D. Appellant's Rebuttal

[81] The Appellant acknowledged that she had misinterpreted the wind rose used by CNPC. The Appellant stated the wind rose diagram provided by CNPC was confusing and caused concerns. The Appellant said the wind rose suggested the wind would appear to be calm as it reached the incinerator, which the Appellant found to be peculiar and noted no effort had been made to explain this "anomaly." The Appellant stated the wind rose data also suggested that wind more than 40 kilometres per hour was a high wind event. The Appellant submitted that residents in the area consider that to be a "normal breezy day."³¹

[82] The Appellant said the Director's statement that increased dispersion could increase the geographical extent, but likely would lower the ground-level concentration of substances, to be very vague. The Appellant stated that relying on the wind to disperse contaminants elsewhere is irresponsible. The Appellant submitted that as there were no plans for testing outside of the Landfill property, it would appear that landowners downwind from the incinerator or residents of the Village of Cowley would have to do their own soil and water testing to find out how the accumulation of substances were progressing on their properties or in their dugouts.

[83] The Appellant noted local residents consider a high wind event to be when the wind blows over a hundred kilometres per hour, which often occurs. The Appellant stated that winds of 140 kilometres an hour are not uncommon. The Appellant submitted it was very unlikely that contaminants would not reach beyond five kilometres to the water in the Reservoir, the Castle River, the bird sanctuary, and the Village of Cowley, all of which were in the direct path of the wind. The Appellant was concerned existing testing for the Reservoir and the Castle River did not test for dioxins or furans.

³¹ Appellant's Rebuttal Submission, October 26, 2020, at page 1.

[84] The Appellant found the following statements from the Director to be conflicting:

- (a) increased dispersion could increase the geographical extent, but likely lower the ground level concentrations of substances.³²
- (b) the Reservoir is outside the air dispersion study area; there is no anticipated impact to the Reservoir from project air emissions.³³
- (c) predicted concentration patterns are zero.³⁴

E. Responses to the Board's Additional Questions

[85] After reviewing the Parties' written submissions, the Board had additional questions which the Parties responded to.

(i) *Question 1*

The Board would like clarification regarding the monitoring required under the Approval and the Amending Approval. What monitoring is required with respect to the landfill under the Approval? What additional monitoring is required with respect to the incinerator under the Amending Approval?

Appellant: Question 1 Response

[86] The Appellant stated CNPC's response to the Board's questions indicate that there was no sampling required under the Amending Approval. The Appellant said there was no

³² Director's Response Submission, September 29, 2020, at paragraph 107. The Board notes the full paragraph states:

"Impact of high winds on the dispersion of substances emitted from the incinerator stack was contemplated through the use of five years of AEP meteorological data in the air dispersion modelling. As depicted in the wind rose, the meteorological data included high wind events, greater than 11.1 m/s (40km/h). These high wind events were considered in the air dispersion model. In general, high wind would increase the dispersion in atmosphere. Increased dispersion could increase the geographical extent, but likely lower the ground level concentrations of substances."

³³ Director's Response Submission, September 29, 2020, at paragraph 80.

³⁴ Director's Response Submission, September 29, 2020, at paragraph 81. The Board notes the full paragraph states:

"For the purpose of visual representation of the predicted concentration patterns, isopleths were prepared for all substances modelled. Review of the isopleths suggests that the predicted ground level concentrations at the Oldman River Dam Reservoir from the CNPC incinerator would be near zero as the reservoir Oldman Reservoir shown on the top, right corner of each figure is not colour coded."

commitment from CNPC to follow the requirements in the Amending Approval regarding the percentage of plastic burned in the incinerator. Appellant stated there was no answer from the Director or CNPC on why the limit of plastic to be burned in the incinerator was chosen to be four percent by weight. The Appellant submitted the release of gas from the incinerator stack at a temperature lower than 700 degrees Celsius would “increase the chance of the inadvertent formation of PCDD/F³⁵ through the de novo synthesis process.”³⁶

[87] The Appellant stated the Director’s response to the Board’s questions demonstrated that any proposal for annual monitoring would be inadequate. The Appellant submitted there would be little if any screening procedures in place for the Landfill.

[88] The Appellant noted the Director acknowledged continuous monitoring is a requirement for a batch incinerator, but the Amendment Application and Amending Approval was for a continuous burning incinerator. The Appellant said this was a vital omission.

[89] The Appellant questioned how the Landfill would deal with public complaints regarding odours.

CNPC: Question 1 Response

[90] CNPC noted Section 4.9 and Sections 4.11.18 to 4.11.28 of the Amending Approval contain monitoring requirements, and Appendix 1 of their response to the Board’s questions provides information on whether the monitoring requirements apply to the Landfill or the incinerator. CNPC stated if there was any discrepancy in its response to the Board’s questions and the Director’s response, it would accept and operate under the direction in the Director’s response.

³⁵ Polychlorinated dibenzo-p-dioxins and furans.

³⁶ Appellant’s Response Letter, January 10, 2021, at page 3.

Director: Question 1 Response

[91] The Director cited 16 conditions in the Approval or the Amending Approval that required monitoring of the Landfill. These included chemical and physical analysis of all solid waste prior to disposal, installation of groundwater monitoring wells, and monitoring of groundwater, subsurface landfill gas, leachate, and landfill runoff.

[92] The Director stated Amending Approval Condition 4.11.6 required CNPC to implement the Incinerator Waste Management Plan, as described in CNPC's Amendment Application. The Director noted the Incinerator Waste Management Plan specified the screening procedure for waste to be incinerated, and included:

- “• the scale attendant and the load operator carry out the general screening procedures at the entrance to the landfill, as described in the Operations Plan;
- the incineration operation personnel visually inspects, weighs and records plastic waste and wood waste prior to storing waste to be incinerated in the incineration building;
- the incineration operation personnel inspects the waste during loading waste into the incinerator to prevent incineration of the prohibited waste; and
- ash will be weighed before being sent for disposal.”³⁷

[93] The Director stated Amending Approval Conditions 4.11.18 and 4.11.19 require annual monitoring and reporting of air emissions from the incinerator stack.

[94] The Director submitted the requirements for continuous monitoring are stringent for a batch incinerator.

[95] The Director said the Amending Approval required CNPC to monitor the incinerator's operations for the type, weight, and composition of waste being burned in the incinerator, combustion temperatures, the weight of bottom ash, and the operating hours and date.

³⁷ Director's Response Letter, December 11, 2020, at page 3.

(ii) *Question 2*

The Board would like clarification regarding Issues 3(d) and (e), which provided: “Are the terms and conditions of the Amending Approval, with respect to the incinerator, appropriate? This includes: ... (d) baseline sampling of soils and water in the area prior to the incinerator becoming operational;” and (e) “regular sampling of soils and water in the area during the operation of the incinerator”...

Appellant: Question 2 Response

[96] The Appellant submitted the Director ignored the Board’s question. The Appellant stated:

“This is the first time in this whole process that anyone considering the mixtures proposed for the incinerator, they actually said they were talking about Volume... All the submissions, all the explanations had never brought up this as a possibility. If each load was ever to be put together by Volume, it would surely mean that dead cows and calves, various branches and clean wood, should all be measured by Volume. The challenges presented by this possibility are comical. The Landfill has many ways to measure weight, and has never claimed to try and find the Volume of anything. The Landfill manager seems quite unaware of this possibility. ‘Misleading’ does not ever come close to his explanation now.”³⁸

CNPC: Question 2 Response

[97] CNPC acknowledged its previous response in the hearing submission caused confusion regarding regular sampling. CNPC stated there was no requirement in the Amending Approval to conduct baseline soil or water sampling related to the incinerator. CNPC submitted the incinerator’s construction and operation would prevent spills and leakage, and avoid impacts to the soil and water.

[98] CNPC said that it could implement a soil monitoring plan involving soil and water sampling related to the incinerator operations. CNPC would only implement such a plan if it was appropriate, or if required by the Director.

³⁸ Appellant’s Response Letter, January 10, 2021, at page 4.

[99] CNPC noted the Amending Approval required CNPC to implement operational measures to prevent spills and leakage and avoid impacts to the surrounding soil and water, including storing animal carcasses in an enclosed building.

[100] CNPC said if there were any differences how the Director and CNPC interpreted the Amending Approval, CNPC would follow the Director's instructions.

Director: Question 2 Response

[101] The Director said the Amending Approval did not require sampling of soils or water. The Director noted she provided rationale for not requiring sampling in the response submission dated September 29, 2020. The Director suggested the confusion regarding CNPC's previous submission may have occurred because CNPC appeared to be referring to sampling required under the Approval, and not the Amending Approval.

(iii) *Question 3*

The Board would like clarification on the effect of the percentage of plastic burned in the incinerator and the effect on emissions.

The Board notes that condition 4.11.8, which is being added to the Approval, provides: "On a batch basis, the approval holder shall only charge less than four percent of agricultural plastic waste by weight into the incinerator."

Appendix 6 (Air Quality Assessment Report) to the Integrated Sustainability Consultants Ltd. Report (January 2017) is the North Shore Environmental Consultants Report. Page 3 of the North Shore Environmental Consultants Report, which is attached, includes Table 1 and Table 2. These tables seem to suggest that the lower the percentage of plastic burned in the incinerator the higher (worse) the air emissions.

For example, with respect to the hourly rates:

TPM	30% - 0.079722 g/s	20% - 0.084722 g/s	17.4°/a - 0.103333 g/s
Dioxins/Furans	30% - 3.33E-13 g/s	20% - 3.56E-13 g/s	17.4% - 4.33E-13 g/s

Please explain. How was four percent chosen?

Appellant: Question 3 Response

[102] The Appellant said mass emissions for Mix 3 does not discuss auxiliary fuel from diesel or natural gas.

[103] The Appellant stated:

“Before any renewed attempt for a new Amending Approval be considered, I ask that fresh Public Information sessions be set up, obviously with Public Health Guidelines in place. There are so many and varied alternatives currently available, to using natural gas to dispose of dead cows. There are many things left that should also be up for discussion. There are many questions still left unanswered. Any trust that any of us had in the process has been undermined. There seems to be no obligation for the Landfill to actually follow the Amending Approval as it now stands. This alone should be enough for discarding the Amending Approval.”³⁹

CNPC: Question 3 Response

[104] CNPC submitted it could not comment on why 4% was chosen as the maximum percentage by weight for agricultural plastic waste per batch. CNPC said North Shore provided additional context as follows:

“Initial dispersion modeling parameters were provided by the manufacturer (Eco Waste Solutions) which identified lower overall emission rates for waste stream mixes that had higher rates of agricultural plastics. In order to ensure that the facility is predicted to comply with ground-level air quality, North Shore used the waste mix stream with the highest overall mass emission rates. This worst case modeling scenario was the waste stream with the lowest agricultural plastics. Based on data provided by the manufacturer, the higher the overall plastic content the lower the overall mass emissions. The primary reason is that the polyethylene plastics (agricultural plastics) are clean burning combustible products with a notable heating value. In contrast, the other biomass (like the cattle) is noncombustible and requires a significant amount of fuel to be combusted.”⁴⁰

³⁹ Appellant’s Response Letter, January 10, 2021, at page 5.

⁴⁰ CNPC’s Response Letter, December 9, 2020, at page 4.

Director: Question 3 Response

[105] The Director explained that North Shore’s report, as referenced by the Board, showed agricultural plastic waste compositions by volume, and that the volumes were equivalent to the weight percentages of 3.4, 6.7, and 4.0. The Director said that when the table the Board referenced included both volume and weight percentage, it appeared as follows:

Table 1 Waste Mix Compositions

	Carcass (Volume / Weight)	Agricultural Plastics (Volume / Weight)	Wood Wastes (Volume / Weight)
Mix 1	70% / 84%	20% / 4%	10% / 12%
Mix 2	60% / 80%	30% / 6.7%	10% / 13.3%
Mix 3	73.9% / 86.5%	17.4% / 3.4%	8.7% / 10.2%

[106] The Director stated the weight percentages were included in the Amendment Application and were provided by the incinerator manufacturer.

[107] The Director said that when the information from the tables referenced by the Board is combined to include both volume and weight it appears as follows:

	Percentage of Agricultural Plastic Waste Volume / mass		
	Mix 2	Mix 1	Mix 3
	30% / 6.7%	20% / 4%	17.4% / 3.4%
TPM	0.079722 g/s	0.084722 g/s	0.947222 g/s
Dioxins / Furans	3.33E-13 g/s	3.56E-13 g/s	4.1667 E-12 g/s

[108] The Director noted the difference in mass emissions for Mix 3 was because North Shore based the emissions on the use of diesel as an auxiliary fuel.

[109] The Director stated: “To avoid crowding out recycling agricultural plastics and address statements of concern, less than 4% of agricultural plastic waste by weight, on a batch basis, is allowed to be charged into the incinerator.”⁴¹

[110] The Director said the modelling was based on Mix 3, and the predicted emissions are less than 1% of the Alberta Ambient Air Quality Objectives (the “Air Quality Objectives”),⁴² with the exception of hydrogen chloride, which is predicted to be at 5.49% of the Air Quality Objectives.

[111] The Director submitted a higher percentage of plastic in a waste mix will result in higher heat content, lower moisture content of the waste mix, and lower natural gas consumption. The Director stated that higher heat and lower moisture would result in improved combustion.

VI. ANALYSIS

[112] Under section 99(1) of EPEA, the Board must provide the Minister with its recommendations regarding the issues in the appeal.⁴³ The issues before the Board were:

1. Does the Approval Holder have an effective Communications Plan in place to address any concerns or issues of local residents if the incinerator commences operations?

⁴¹ Director’s Response Letter, December 11, 2020, at paragraph 34.

⁴² Alberta Ambient Air Quality Objectives and Guidelines Summary [June 2017], found at the Director’s Record, Tab 147. The Board notes document states: “Alberta’s Ambient Air Quality Objectives are intended to provide protection of the environment and human health to an extent technically and economically feasible, as well as socially and politically acceptable.”

⁴³ Section 99(1) of EPEA states:

“In the case of a notice of appeal referred to in section 91(1)(a) to (m) of this Act or in section 115(1)(a) to (i), (k), (m) to (p) and (r) of the Water Act, the Board shall within 30 days after the completion of the hearing of the appeal submit a report to the Minister, including its recommendations and the representations or a summary of the representations that were made to it.”

2. Was the Director's decision to issue an amending approval to allow the construction and operation of an incinerator at the Crowsnest/Pincher Creek Landfill appropriate?
3. Are the terms and conditions of the Amending Approval, with respect to the incinerator, appropriate?

[113] Based on the evidence in the Director's Record, and the submissions of the Parties, the Board provides the following response to these issues.

1. Issue 1

Does the Approval Holder have an effective Communications Plan in place to address any concerns or issues of local residents if the incinerator commences operations?

[114] It is obvious to the Board there has been a breakdown in effective communication and trust between the Appellant and CNPC. Based on the Appellant's submission, the Board believes there are other members of the community who share the same concerns as the Appellant. An open and effective Communications Plan from CNPC should help build a relationship of trust with the Appellant and the community.

[115] The Board reviewed the CNPC draft Communications Plan and considers it insufficient to address concerns or issues of local residents. The Board recommends CNPC implement a Communications Plan that provides general information regarding the Landfill and the incinerator, and includes details of an emergency plan for the incinerator and the local area. The Communications Plan should be completed and approved by the Director before the incinerator is operational.

[116] The Board recommends that, at a minimum, the general information portion of the Communications Plan would include:

- (a) information on the landfill website explaining how to contact CNPC, including a toll-free number, email addresses, and any other type of communication that would be appropriate;
- (b) a requirement that, in addition to the requirements of Amending Approval conditions 4.11.29, 4.11.30(f), and 4.11.31(d) and (e) regarding tracking,

documenting, and responding to public complaints regarding odours, CNPC would keep a log of every public communication (phone call, letter, or email) received and document how CNPC followed up with each public communication;

- (c) the requirement that for five years after the incinerator commences operations, CNPC would, on an annual basis, mail to the residents within a three kilometer radius of the landfill, a newsletter containing:
 - (i) updates to contact information for the approval holder; and
 - (ii) information on how to find the landfill's annual report and other information on the approval holder's website.
- (d) an Emergency Plan for the incinerator; and
- (e) the requirement that upon the incinerator construction being completed, CNPC would post to the website the air monitoring, soil, and water data, as required by the Approval and Amending Approval, along with annual reports for the landfill and incinerator.

[117] At a minimum, and in addition to the requirements of Amending Approval condition 4.11.30(j)(q), the Emergency Plan portion of the Communications Plan would include:

- (a) a definition of emergency;
- (b) a map with a contact list of residents living within a three kilometer radius of the incinerator, and representatives from the municipal authorities in the municipalities of Cowley, Pincher Creek, and Lundbreck;
- (c) a requirement to update the contact list on an annual basis;
- (d) a requirement that in an emergency CNPC will:
 - (i) contact all residents within a three kilometre radius of the incinerator; and
 - (ii) contact the municipal representatives, who would, at their discretion, communicate with their residents; and
- (e) a requirement to keep the contact information private and confidential;

[118] The Communications Plan and Emergency Plan would be submitted to the Director for review and approval before the incinerator can commence operations.

2. Issue 2

Was the Director's decision to issue an amending approval to allow the construction and operation of an incinerator at the Crowsnest/Pincher Creek Landfill appropriate?

[119] The Board finds the Director's decision to issue the Amending Approval appropriate.

[120] In determining whether the wind data used for the air dispersion modelling was appropriate, the Board noted the wind rose diagrams used by CNPC⁴⁴ were confusing, but depicted the correct prevailing wind direction as from the west and southwest.

[121] In the Amendment Application, CNPC was required to follow AEP's Industrial Release Limits Policy,⁴⁵ which states:

“This policy document outlines the approach followed by Alberta Environment (AENV) staff to develop industrial release limits for approvals under the *Environmental Protection and Enhancement Act*. The policy supports the Alberta Government's ‘Commitment to Sustainable Resource & Environmental Management’ by outlining how pollution prevention/control requirements are established for industrial releases to the environment.”⁴⁶

[122] CNPC was also required to follow the AQMG in its application for the Amending Approval. The AQMG was developed “to ensure consistency in the use of dispersion models for regulatory applications in Alberta.”⁴⁷

[123] CNPC used data from Environment Canada that was approved for use by AEP and was representative of data that would have been obtained had a ground-based meteorological monitoring station existed near the Landfill. The modelling showed that stronger winds would result in greater dispersion of substances, which reduced the concentration of any substances to the point that they had a negligible impact. Even at low wind speed, dispersion is not an issue, as

⁴⁴ Director's Record, at Tab 167.

⁴⁵ Director's Record, at Tab 144.

⁴⁶ Director's Record, at Tab 144, page 1.

⁴⁷ Director's Record, at Tab 146, Preface.

the concentration of substances during low wind speeds is less than 1 percent of the Air Quality Objectives.

[124] The Board finds the wind data used for the air dispersion modelling was appropriate.

[125] Any impact of the incinerator on the Reservoir is closely tied to the wind dispersion of the incinerator's emissions. CNPC was required to study the potential impacts on any area where ground-level concentrations would be above 10% of the levels set in the AQMG. The air modelling for the incinerator showed that none of the ground-level concentrations would reach the 10% mark, therefore, AEP did not require CNPC to study the potential impact on the Reservoir.

[126] CNPC's modelling showed that the maximum predicted concentration of substances would occur within the Landfill boundaries and would be 6% or less of the acceptable levels. The incinerator's impact on the air quality at the Landfill is minor, and the impact on air quality at the Reservoir would be even less.

[127] The Board noted the only liquid expected to be generated from the incinerator was from animal carcass management. The Amending Approval requires incineration of any liquid, and requires animal carcasses to be stored inside a specially constructed building designed to prevent leakage.

[128] The Board observed that AEP already conducts surface water monitoring of the Oldman River along with other water bodies across the province, and that long-term surface water monitoring stations exist to the east of the Landfill and downstream from the Reservoir.

[129] The Board finds the Director properly considered the potential impact of the incinerator on the water in the Reservoir.

[130] The Appellant expressed concerns regarding the burning of plastics in the incinerator. The Director stated the Amending Approval required CNPC to weigh each type of waste before it is incinerated. The amount of agricultural plastic waste was restricted to four percent of the weight per batch of waste being incinerated. The Board found the information provided in the written submissions lacking on how the amount of four percent of agricultural plastic waste per batch was determined. The Board requested the Director and CNPC provide further information on this question. A review of the responses from the Parties indicated that the figure of four percent of agricultural plastics per batch was an amount determined by the Director exercising her discretion based on the following factors:

- (a) incineration of plastics increases the heat of the combustion and results in a more complete burn of animal carcasses, which would otherwise require significantly more natural gas consumption to achieve the same level of incineration;
- (b) statements of concern indicated some of the public were concerned about the release of substances when plastic was incinerated;
- (c) by restricting the amount of plastics allowed to be incinerated, the diversion of plastics from recycling to incineration is avoided; and
- (d) by not permitting more than four percent of agricultural plastics to be incinerated per batch, the emissions are maintained at less than 1 percent of the Air Quality Objectives.

[131] The Board notes the Amending Approval has multiple conditions to address the potential impact of burning plastics in the incinerator, including the addition of a definition for “agricultural plastic waste,” which is non-hazardous and non-chlorinated plastic waste generated by a farmer. The Director stated incineration of plastic waste will result in a higher heat content and lower moisture content which will improve the combustion and result in lower emissions. CNPC noted the modelling was conducted as if the incinerator would be continuously burning, instead of running on “batch mode.” As a result, the emissions and potential impacts are overestimated. The Board notes that even with the overestimation the potential impacts are well below acceptable standards.

[132] The Board finds the Director properly considered the potential impact of burning plastics in the incinerator on the local environment, including the potential impacts on local residents.

3. Issue 3

Are the terms and conditions of the Amending Approval, with respect to the incinerator, appropriate? This includes:

(a) *the use of appropriate pollution control equipment;*

[133] The Board notes the incinerator was designed to “meet and exceed environmental standards during operation without requiring pollution controls.”⁴⁸ The Board also notes the modelling indicated the release of substances would be well within the acceptable levels as specified in the Air Quality Objectives, and the wind dispersion of substances further reduced any risk to the environment or human health. The Board observed that the Director stated “combustion control is the most effective method to reduce emissions of dioxins, furans, VOCs and carbon monoxide.”⁴⁹ The Board found no additional pollution control equipment was required for the following reasons:

- (a) the Approval and the Amending Approval required:
 - (i) restrictions on the types of waste allowed to be burned;
 - (ii) stringent emission limits;
 - (iii) monitoring;
 - (iv) effective training of staff; and
 - (v) efficient operation of the incinerator.
- (b) the incinerator was designed to operate with low emissions;
- (c) low levels of substances would be released; and
- (d) wind dispersion would reduce any risk of accumulation of substances.

⁴⁸ CNPC’s Response Submissions, September 28, 2020, at page 5.

⁴⁹ Director’s Response Submission, September 29, 2020, at page 21.

(b) *the operation of the incinerator during high winds;*

[134] The Board was satisfied the incinerator could be operated safely during high winds as high winds create better dispersion of any emissions. The Board noted the incinerator would be inside a building which provided protection from high winds.

(c) *notice to local landowners during emergency shut downs;*

[135] The Board agreed with the Appellant that local landowners should receive notice during emergency shut downs. The Board addressed this concern in its remarks on Issue 1.

(d) *baseline sampling of soils and water in the area prior to the incinerator becoming operational;*

[136] The Director stated the reason the Amending Approval does not require sampling is that the modelling predicted the ambient air quality at ground level at the Landfill would be well below the Air Quality Objectives, and that waste water from the incinerator is prohibited from being released into the surrounding area. The Board notes that a soil and water quality baseline is already being developed through the regular sampling conducted by CNPC at the Landfill. Additionally, the incinerator will be in a specially constructed building, which will reduce any chance of contamination being released.

(e) *regular sampling of soils and water in the area during the operation of the incinerator;*

[137] The Director's reasons for not requiring soil and water sampling during the operation of the incinerator are the same reasons the Director gave for not requiring soil and water sampling prior to the operation of the incinerator. The Board finds the regular sampling from the Landfill should be sufficient to address any need for sampling due to the operation of the incinerator.

(f) *notice to the public of sampling results;*

[138] The Board notes that monitoring data is available on the Landfill's website. The Board has already commented that CNPC needs to improve its communications with the

surrounding community. Effectively advising the public that sampling results are available online would be part of that improved communications effort.

(g) *a response plan in the event contamination is found in the area surrounding the incinerator;*

[139] As the Board commented previously at Issue 1, there needs to be an effective Communications Plan and Emergency Plan to adequately address an emergency such as an event of contamination and how and to whom it should be communicated.

(h) *sufficient conditions to ensure compliance with the Approvals*

[140] The Board notes AEP has adequate enforcement tools to address any compliance issues associated with the Approval and Amending Approval. If members of the public are aware of noncompliance by CNPC, they may contact AEP and report the offences.⁵⁰

VII. RECOMMENDATIONS

[141] On issue one, the Board finds CNPC does not have an effective Communications Plan in place to address any concerns or issues of local residents if the incinerator commences operation.

[142] On issue two, the Board finds the Director's decision to issue an Amending Approval to allow the construction and operation of an incinerator at the Crowsnest/Pincher Creek Landfill, was appropriate. This includes taking into account:

- (a) the wind data used for the air dispersion modelling;
- (b) the Director's consideration of the potential impact of the incinerator on water in the Oldman River Dam Reservoir; and
- (c) the Director's consideration of the potential impact of burning plastics in the incinerator on the local environment, including local residents.

⁵⁰ AEP has a toll-free 24-Hour Response Line: 1-800-222-6514. Non-emergency inquiries can be made at: 310-3773, or by email: aep.info-centre@gov.ab.ca.

[143] On issue three, the Board finds the terms and conditions of the Amending Approval, with respect to the incinerator, are appropriate. This includes taking into account:

- (a) the use of appropriate pollution control equipment;
- (b) the operation of the incinerator during high winds;
- (c) baseline sampling of soils and water in the area prior to the incinerator becoming operational;
- (d) regular sampling of soils and water in the area during the operation of the incinerator; and
- (e) sufficient conditions to ensure compliance with the Approvals.

The Board recommends that CNPC be required to develop and implement an effective community communications plan, which would include an emergency response plan. The Board recommends the Minister vary Amending Approval No. 18701-02-01 by adding the following after 4.11.35:

“Public Communications Plan

- 4.11.36 Before the incinerator is operational, the approval holder shall develop and implement a Public Communications Plan which shall include, at a minimum, the following requirements:
- (a) the approval holder shall provide information on its website explaining how to contact the approval holder, including a toll-free number, email addresses, and any other type of communication that would be appropriate;
 - (b) the approval holder shall, in addition to its requirements in 4.11.29, 4.11.30(f), and 4.11.31(d) and (e), keep a log of all public communication (phone call, letter, or email) received and document how the approval holder followed up with each public communication;
 - (c) for five years after the incinerator commences operations, the approval holder shall, on an annual basis, mail to the residents within a three kilometer radius, a newsletter containing:
 - (i) updates to contact information for the approval holder; and

- (ii) information on how to find the landfill's annual report and other information on the approval holder's website;
 - (d) the approval holder shall have an Emergency Plan for the incinerator; and
 - (e) after the incinerator construction is completed, the approval holder shall post to the website the air monitoring, soil, and water data as required by the Approval, along with annual reports for the landfill and incinerator.
- 4.11.37 The Emergency Plan for the incinerator shall include, at a minimum, all of the following:
- (a) a definition of what conditions are considered an emergency;
 - (b) a map with a contact list of:
 - (i) residents living within a three kilometer radius of the landfill; and
 - (ii) representatives from the municipal authorities in the municipalities of Cowley, Pincher Creek, and Lundbreck;
 - (c) the contact list shall be updated on an annual basis;
 - (d) in an emergency the approval holder shall:
 - (i) contact all residents within a three kilometre radius of the landfill; and
 - (ii) contact the municipal representatives, who will have the discretion to communicate with their residents;
 - (e) the contact list shall be private and confidential.
- 4.11.38 The approval holder shall submit the Public Communications Plan and the Emergency Plan to the Director for approval and make any changes required by the Director.”

[144] In accordance with sections 100(2) and 103 of EPEA,⁵¹ the Board shall provide copies of this Report and Recommendations, and the decision of the Minister, to the following:

⁵¹ Section 102(2) of EPEA states:

1. Ms. Diana Calder, Appellant;
2. Mr. Emile Saindon, representing Crowsnest/Pincher Creek Landfill Association,
3. Stephanie Demers and Tanya Cairns, Integrated Sustainability Consultants Ltd.; and
4. Ms. Alison Altmiks, Alberta Justice and Solicitor General, on behalf of the Director, Regional Compliance, South Saskatchewan Region, Alberta Environment and Parks.

[145] The Board notes none of the Parties reserved the right to ask for costs.

Dated on March 5, 2021, at Edmonton, Alberta.

-original signed by-

Line Lacasse
Panel Chair

-original signed by-

Brenda Ballachey
Board Member

-original signed by-

Kurtis Averill
Board Member

“The Minister shall immediately give notice of any decision made under this section to the Board and the Board shall, immediately on receipt of notice of the decision, give notice of the decision to all persons who submitted notices of appeal or made representations or written submissions to the Board and to all other persons who the Board considers should receive notice of the decision.”

Section 103 of EPEA provides:

“On complying with section 100(2), the Board shall publish or otherwise make available the Board's report and recommendations, or a summary of them, and a notice of the Minister's decision in the manner the Board considers appropriate.”



ALBERTA

ENVIRONMENT AND PARKS

Office of the Minister

Government House Leader

MLA, Rimbey-Rocky Mountain House-Sundre

Ministerial Order 44/2021

Environmental Protection and Enhancement Act, R.S.A. 2000, c. E-12

Order Respecting Environmental Appeals Board Appeal No. 18-011

I, Jason Nixon, Minister of Environment and Parks, pursuant to section 100 of the *Environmental Protection and Enhancement Act*, make the order in the attached Appendix, being an Order Respecting Environmental Appeals Board Appeal No. 18-011.

Dated at the City of Edmonton, in the Province of Alberta, this 18 day of MARCH, 2021.



Jason Nixon
Minister

Appendix

Order Respecting Environmental Appeals Board Appeal No. 18-011

With respect to the decision of the Director, South Saskatchewan Region, Operations Division, Alberta Environment and Parks (the "Director"), to issue Amending Approval No. 18701-02-01 (the "Amending Approval") under the *Environmental Protection and Enhancement Act*, R.S.A. 2000, c. E-12, to the Crowsnest/Pincher Creek Landfill Association, I, Jason Nixon, Minister of Environment and Parks, order that the Director's decision to issue the Amending Approval is varied by adding the following after 4.11.35 of the Amending Approval:

"Public Communications Plan"

- 4.11.36 Before the incinerator is operational, the approval holder shall develop and implement a Public Communications Plan which shall include, at a minimum, the following requirements:
- (a) the approval holder shall provide information on its website explaining how to contact the approval holder, including a toll-free number, email addresses, and any other type of communication that would be appropriate;
 - (b) the approval holder shall, in addition to its requirements in 4.11.29, 4.11.30(f), and 4.11.31(d) and (e), keep a log of all public communication (phone call, letter, or email) received and document how the approval holder followed up with each public communication;
 - (c) for five years after the incinerator commences operations, the approval holder shall, on an annual basis, mail to the residents within a three kilometer radius, a newsletter containing:
 - (i) updates to the contact information for the approval holder; and
 - (ii) information on how to find the landfill's annual report and other information on the approval holder's website;
 - (d) the approval holder shall have an Emergency Plan for the incinerator; and
 - (e) after the incinerator construction is completed, the approval holder shall post to the website the air monitoring, soil, and water data as required by the Approval, along with annual reports for the landfill and incinerator.

- 4.11.37 The Emergency Plan for the incinerator shall include, at a minimum, the following requirements:
- (a) a definition of what conditions are considered an emergency;
 - (b) a map with a contact list of:
 - (i) residents living within a three kilometer radius of the landfill; and
 - (ii) representatives from the municipal authorities in the municipalities of Cowley, Pincher Creek, and Lundbreck;
 - (c) the contact list shall be updated on an annual basis;
 - (d) in an emergency, the approval holder shall:
 - (i) contact all residents within a three kilometre radius of the landfill; and
 - (ii) contact the municipal representatives, who will have the discretion to communicate with their residents;
 - (e) the contact list shall be private and confidential.

4.11.38 The approval holder shall submit the Public Communications Plan and the Emergency Plan to the Director for approval and make any changes required by the Director.”