

Decision Summary RA20040

This document summarizes my reasons for issuing Approval RA20040 under the *Agricultural Operation Practices Act* (AOPA). Additional reasons are in Technical Document RA20040. All decision documents and the full application are available on the Natural Resources Conservation Board (NRCB) website at www.nrcb.ca under Confined Feeding Operations (CFO)/CFO Search. My decision is based on the act and its regulations, the policies of the NRCB, the information contained in the application, and all other materials in the application file.

1. Background

On August 10, 2020, Ryan & Jo-Ann Andrew, and Andrew Dairy Ltd. (Andrew Dairy) submitted a Part 1 application to the NRCB to construct a new sheep and dairy CFO. The Part 2 application was submitted on August 10, 2020. On September 3, 2020, I deemed the application complete.

The proposed CFO will include:

- A dairy operation with 70 milking cows (plus associated dries and replacements)
- A sheep operation with:
 - 1,000 ewes with lambs
 - 2,000 feeder lambs
- Constructing a dairy barn (73 m x 20 m)
- Constructing an earthen liquid manure storage (EMS/catch basin) (46 m x 37 m x 4.2 m deep)
- Constructing sheep pens (107 m x 46 m)

The application also includes construction of an equipment/milk room (10 m x 12 m) attached to the dairy barn. This facility is an “ancillary structure,” under section 1(1)(a.1) of the Agricultural Operations, Part 2 Matters Regulation, because it will not be used to store or collect manure or to confine livestock. Therefore, under section 4.1 of that regulation, this structure does not need to be permitted under the act.

Under AOPA, this type of application requires an approval. (This is one of several types of “permits” issued under AOPA. For an explanation of the different types and when each one applies, see www.nrcb.ca.)

There is an existing sheep operation on site. On August 15, 2019, the NRCB issued a letter to the applicant indicating that the existing sheep farm can continue operating as a seasonal feeding and bedding site.

a. Location

The proposed CFO is located at NE 13-41-23 W4M in Lacombe County, roughly 12 km northeast of Tees, Alberta. The terrain in the vicinity is hilly and the site will be located on a slightly undulating field.

2. Notices to affected parties

Under section 19 of AOPA, the NRCB is required to notify (or direct the applicant to notify) all parties that are “affected” by an approval application. Section 5 of AOPA’s Part 2 Matters Regulation defines “affected parties” as:

- the municipality where the CFO is or is to be located
- any other municipality whose boundary is within a specified distance from the CFO, depending on the size of the CFO
- all individuals who own or reside on land within a specified distance from the CFO, depending on the size of the CFO

For this application, the distance is one mile. (The NRCB refers to this distance as the “affected party radius.”)

Municipalities that are affected parties are defined by the act to be “directly affected” and are entitled to provide evidence and written submissions. Lacombe County is an affected party (and therefore also a directly affected party) because the proposed CFO is located within its boundaries.

All other parties who receive notice of the application may request to be considered “directly affected.” Under NRCB policy, all individuals who own or reside on land within the affected party radius are presumed to be “directly affected” if they submit a written response to the notice within the prescribed timeline. See NRCB Operational Policy 2016-7: *Approvals*, part 6.2.

Under section 20 of the act, all directly affected parties are entitled to a reasonable opportunity to provide evidence and written submissions regarding the application.

All directly affected parties are also entitled to request an NRCB board review of the approval officer’s decision on the approval application.

The NRCB published notice of the application in the Lacombe Express on September 3, 2020 and posted the full application on the NRCB website for public viewing. The NRCB also emailed referral letters and a copy of the complete application to Lacombe County, Alberta Health Services (AHS), Alberta Environment and Parks (AEP), Alberta Agriculture and Forestry (AF), and utility right of way holders: Ember Resources, Battle River Power Coop, and Chain Lakes Gas Coop. Twenty seven courtesy letters were sent to people identified by Lacombe County as owning or residing on land within the affected party radius.

3. Responses from the municipality and referral agencies

I received responses from the county, AHS, AEP and AF. No response was received from the utility right of way holders.

Ms. Allison Noonan, a planning services administrative assistant, provided a written response on behalf of Lacombe County. As noted in section 2, Lacombe County is a directly affected party.

Ms. Noonan stated that the application is consistent with Lacombe County’s municipal development plan (MDP). The application’s consistency with Lacombe County’s MDP is addressed in appendix A, attached.

Ms. Noonan noted that the application meets all related setback requirements under the county's land use bylaw.

The NRCB also received a response from Ms. Pamela Kutuadu, an AHS environmental health officer/executive officer indicating that AHS has no concerns with this application. Ms. Kutuadu included in her response, that under the *Public Health Act*, it is recommended to test water wells that are used for human consumption twice a year for bacteria.

Ms. Laura Partridge, a water administrator technologist at AEP sent an email to the applicant and the NRCB indicating that if the annual water requirement is greater than their current water licence, Andrew Dairy needs to apply for additional water licence under the *Water Act*. The applicants are reminded that they need to obtain a water license in accordance with the *Water Act*.

Mr. Al Spink, an inspector indicated that AF has no concerns with this application.

4. Responses from other directly affected parties

The NRCB received one response from Julie and Dean Hjelte (SE 23-41-23 W4M). The response letter was in support of the application.

Mr. and Ms. Hjelte own or reside on land within the one mile radius for affected persons. Because of their location within this radius, they are presumed to be directly affected by the application.

5. Environmental risk screening of proposed facilities

As part of my review of this application, I assessed the risk to surface water and groundwater posed by the CFO's proposed manure storage facilities. I used the NRCB's environmental risk screening tool for this purpose (see NRCB Operational Policy 2016-7: *Approvals*, part 8.13). The tool provides for a numeric scoring of risks, which can fall within either a low, moderate, or high risk range. (A complete description of this tool is available under CFO/Groundwater and Surface Water Protection on the NRCB website at www.nrcb.ca.)

All of the CFO's proposed facilities pose a low potential risk to groundwater and surface water

6. Other factors considered

The application meets all relevant AOPA requirements, with the terms and conditions summarized in part 7.

In addition, the proposed CFO is consistent with the land use provisions of Lacombe County's municipal development plan. (See Appendix A for a more detailed discussion of the county's planning requirements.)

With respect to the act's technical requirements, the proposed CFO:

- Meets the required AOPA setbacks from all nearby residences (AOPA setbacks are known as the "minimum distance separation" requirements, or MDS)
- Meets the required AOPA setbacks from water wells, springs and common bodies of water

- Has sufficient means to control surface runoff of manure
- Meets AOPA's nutrient management requirements regarding the land application of manure
- Meets AOPA groundwater protection requirements for the design of floors and liners of manure storage facilities

In addition, I assessed the effects of the proposed CFO on the environment. Consistent with NRCB policy, I determined that these effects are acceptable because the application meets all of AOPA's technical requirements. I also determined that the application's effects on the economy and community are acceptable, and that the proposed CFO is an appropriate use of land. Under NRCB policy, these determinations are based on the application's consistency with the municipal development plan. (See NRCB Operational Policy 2016-7: *Approvals*, part 8.7.3.)

7. Terms and conditions

Approval RA20040 specifies the new permitted livestock capacity as:

- 70 milking cows (plus associated dries and replacements)
- 1,000 ewes with lambs
- 2,000 feeder lambs.

This approval also permits the construction of:

- a dairy barn
- an EMS/catch basin
- sheep pens

Approval RA20040 also contains terms that the NRCB generally includes in all AOPA approvals, including terms stating that the applicant must follow AOPA requirements and must adhere to the project descriptions in their application and accompanying materials.

In addition to the terms described above, Approval RA20040 includes conditions that:

- Set a deadline of November 30, 2023 for the approved construction to be completed
- Require submission of an engineer's completion report for the EMS/catch basin
- Require the concrete used to construct the liner of the manure collection and storage portion of the manure collection pit in the dairy barn, and the dairy barn to meet the specification for category B (liquid manure shallow pits) and category C (solid manure – wet), respectively in Technical Guideline Agdex 096-93 "Non-Engineered Concrete Liners for Manure Collection and Storage Areas"
- Require written confirmation from a qualified third party, or other documentation, confirming that the concrete used for the manure collection and storage area meets the required specifications.
- Prohibit Andrew Dairy from placing manure or livestock in the sheep pens and the dairy barn, nor placing manure or manure contaminated runoff in the EMS/catch basin, until the facilities have been inspected by the NRCB following their construction

For an explanation of the reasons for these conditions, see Appendix B.

8. Conclusion

Approval RA20040 is issued for the reasons provided above, in the attached appendices, and in Technical Document RA20040.

October 15, 2020

(Original Signed)
Francisco Echegaray
Approval Officer

Appendices:

- A. Consistency with the municipal development plan
- B. Explanation of conditions in Approval RA20040

APPENDIX A: Consistency with the municipal development plan

Under section 20 of AOPA, an approval officer may approve an application for an approval only if the approval officer finds that the application is consistent with the “land use provisions” of the applicable municipal development plan (MDP).

The NRCB interprets the term “land use provisions” as covering MDP policies that provide generic directions about the acceptability of various land uses in specific areas and that do not call for discretionary judgements relating to the acceptability of a given confined feeding operation (CFO) development. (See NRCB Operational Policy 2016-7: *Approvals*, part 8.2.5.) Under this interpretation, the term “land use provisions” also excludes MDP policies that impose procedural requirements. In addition, section 20(1.1) of the act precludes approval officers from considering MDP provisions “respecting tests or conditions related to the construction of or the site” of a CFO or manure storage facility, or regarding the land application of manure. (These types of MDP provisions are commonly referred to as MDP “tests or conditions.”)

Andrew Dairy’s CFO is located in Lacombe County and is therefore subject to that county’s MDP. Lacombe County adopted the latest revision to this plan on July 9, 2020. As relevant here:

Section 3.3.1 states that “All lands in the County shall be deemed to be agricultural lands unless otherwise designated by the Municipal Development Plan, an approved statutory or non-statutory plan, the Land Use Bylaw, or provincial legislation.”

I consider this section to be a procedural in nature and not a valid land use provision. However, it does provide insight for the interpretation of the remaining portions of the MDP and land use bylaw (LUB).

Section 3.9.1 of the county’s MDP states that the “County shall provide input on applications for confined feeding operations to the Natural Resources Conservation Board (NRCB) under the *Agricultural Operations Practices Act*. The county’s support is subject to the following:

- a) No new confined feeding operation shall be permitted less than 1.6 kilometres (1 mile) from the boundary of:
 - i) a town, village, summer village or hamlet;
 - ii) an area developed or designated for multi-lot residential use; or
 - iii) a provincial or municipal park or recreation area, or other area used or intended to be used for a recreational facility development, except that where provincial regulations require a larger setback distance, that distance shall apply.

Further restriction on the development of confined feeding operations may apply as directed by an Intermunicipal Development Plan or other local plan approved by Council.”

The application for a new CFO is located outside of these 1.6 km setbacks.

As for section 3.9.1’s reference to intermunicipal development plans (IDP) or other plans approved by the county’s council, this CFO is not located within land identified as part an IDP or any other plans.

For these reasons, I conclude that the application is consistent with the land use provisions of Lacombe County's MDP. This conclusion is consistent with the county's written response to the application.

In my view, under sections 1.3.4 and 3.3, the MDP clearly intends to incorporate Lacombe County's LUB #1237/17 (see NRCB Operational Policy 2016-7: *Approvals*, part 8.2.3). Accordingly, I considered the LUB.

Under that bylaw, the subject land is currently zoned as Agricultural "A" District. CFOs are not listed as either a permitted or discretionary use within that zoning category. However, section 3.2(2)(j) of the LUB states that CFOs do not require a development permit. I interpret this provision as meaning either that the county intended CFOs to have the same effective status as listed permitted uses, or that the county simply does not intend to address CFOs in its LUB (given that the NRCB's permitting role since AOPA came into effect in 2002). Under either interpretation, the proposed CFO does not conflict with the LUB.

APPENDIX B: Explanation of conditions in Approval RA20040

Approval RA20040 includes several conditions, discussed below:

a. Groundwater protection requirements

Andrew Dairy proposes to construct the new EMS/catch basin with a 3 metre thick naturally occurring protective layer. Section 9 of AOPA's Standards and Administration Regulation specifies a maximum hydraulic conductivity for this type of protective layer in order to minimize leakage.

Andrew Dairy measured the hydraulic conductivity of the protective layer by installing a monitoring well (or water table well) at the time of borehole drilling. This approach provides an adequate representation of the protective layers proposed to be used to protect the groundwater resource.

The regulations provide that the actual hydraulic conductivity of a 10 metre thick naturally occurring protective layer must not be more than 1×10^{-6} cm/sec.

In this case, the in situ measurement was 2.68×10^{-7} cm/sec. This value is below the maximum value in the regulations. Therefore, the proposed naturally occurring protective layer meets the hydraulic conductivity requirement in the regulations.

To provide additional assurance that the as-built EMS/catch basin adequately protect groundwater, Approval RA20040 includes a condition requiring Andrew Dairy to provide an engineer's completion report certifying that the EMS/catch basin was constructed with the same liner material as that used for hydraulic conductivity testing and that the EMS was constructed according to the proposed procedures and design specifications, including the compacted liner along the walls.

b. Construction Deadline

Andrew Dairy proposes to complete construction of the proposed facilities at the new CFO by the summer of 2021, less than one construction season after this approval is issued. In my opinion, a construction schedule that allows three construction seasons is more practical and realistic for the proposed development. Therefore, a deadline of November 30, 2023 is included as a condition in Approval RA20040.

c. Post-construction inspection and review

The NRCB's general practice is to include conditions in new or amended permits to ensure that the new or expanded facilities are constructed according to the required design specifications. Accordingly, Approval RA20040 includes conditions requiring:

- the concrete used to construct the liner of the manure collection and storage portion of the manure collection pit inside the dairy barn, and the dairy barn to meet the specification for category B (liquid manure shallow pits) and category C (solid manure – wet), respectively in Technical Guideline Agdex 096-93 “Non-Engineered Concrete Liners for Manure Collection and Storage Areas.”
- Andrew Dairy to provide written confirmation, signed by a qualified third party or other documentation, confirming that the concrete used for the manure collection and storage area meets the required specifications.

The NRCB routinely inspects newly constructed facilities to assess whether the facilities were constructed according to their required design specifications. To be effective, these inspections must occur before livestock or manure are placed in the newly constructed facilities. Approval RA20040 includes conditions stating that Andrew Dairy shall not place livestock or manure in the manure storage portions of the new dairy barn and sheep pens, or manure/ manure contaminated runoff in the EMS/catch basin, until NRCB personnel have inspected these facilities and confirmed in writing that they meet the approval requirements.