

Decision Summary RA24003

This document summarizes my reasons for issuing Authorization RA24003 under the *Agricultural Operation Practices Act* (AOPA). Additional reasons are in Technical Document RA24003. 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.

Under AOPA this type of application requires an authorization. For additional information on NRCB permits please refer to www.nrcb.ca.

1. Background

On January 17, 2024, Bart and Karly Boom operating as Boom Holsteins Ltd. (Boom Holsteins) submitted a Part 1 application to the NRCB to construct a manure storage facility (MSF) and a manure collection area (MCA) at an existing dairy CFO.

The Part 2 application was submitted on January 26, 2024. On February 8, 2024, I deemed the application complete.

The proposed construction involves:

- Constructing a free stall dairy barn – 120 m x 33 m
- Constructing a sand recovery storage shed – 60 m x 21 m

The application does not propose an increase in livestock.

a. Location

The existing CFO is located at SE 13-32-28 W4M in Mountain View County, roughly 17 km southeast of Olds, Alberta. The terrain is gently undulating with a general slope to the southwest towards an un-named slough/reservoir located approximately 680 m from the CFO.

b. Existing permits

The CFO is already permitted under Approval RA15059A and Authorization RA18041, which allow the construction and operation of a dairy CFO with 250 milking cows (plus associated dries and replacements). The CFO's existing permitted facilities are listed in the appendix to Approval RA15059A.

2. Notices to affected parties

Under section 21 of AOPA, the NRCB notifies all parties that are “affected” by an authorization application. Section 5 of AOPA's Part 2 Matters Regulation defines “affected parties” as:

- the municipality where the CFO is located or is to be located
- in the case where part of a CFO is located, or is to be located, within 100 m of a bank of a river, stream or canal, a municipality entitled to divert water from that body within 10

- miles downstream
- any other municipality whose boundary is within a notification distance. In this case, the notification distance is ½ mile (804 m) from the CFO

None of the CFO facilities are located within 100 m of a bank of a river, stream, or canal.

A copy of the application was sent to Mountain View County, which is the municipality where the CFO is located.

3. Notice to other persons or organizations

Under NRCB policy, the NRCB may also notify persons and organizations the approval officer considers appropriate. This includes sending applications to referral agencies which have a potential regulatory interest under their respective legislation.

Referral letters and a copy of the complete application were emailed to Alberta Environment and Protected Areas (EPA) and Alberta Agriculture and Irrigation (AGI).

I also sent a copy of the application to Crossroads Gas Co-op Ltd. and Ember Resources Inc. as right of way/easement holders.

No responses were received from the above-listed organizations.

4. Municipal Development Plan (MDP) consistency

I have determined that the proposed construction is consistent with the land use provisions of Mountain View County's municipal development plan. (See Appendix A for a more detailed discussion of the county's planning requirements.)

5. AOPA requirements

With respect to the technical requirements set out in the regulations, the proposed construction:

- 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 springs and common bodies of water
- Has sufficient means to control surface runoff of manure
- Meets AOPA groundwater protection requirements for the design of floors and liners of manure storage facilities and manure collection areas

With the terms and conditions summarized in part 9, the application meets all relevant AOPA requirements. The exemptions that are required to address the AOPA requirements around water wells are discussed in the following parts of this decision summary.

6. Response from municipality

Directly affected parties are entitled to a reasonable opportunity to provide evidence and written submissions relevant to the application and are entitled to request an NRCB Board review of the approval officer's decision.

Municipalities that are affected parties are identified by the Act as "directly affected." Mountain View County is an affected party (and directly affected) because the proposed facilities are

located within its boundaries.

Ms. Peggy Grochmal, a permitting and development officer with Mountain View County/Planning and Development Services, provided a written response on behalf of Mountain View County. Ms. Grochmal stated that the application is consistent with Mountain View County's land use provisions of the municipal development plan. The application's consistency with Mountain View County's municipal development plan is addressed in Appendix A, attached.

Ms. Grochmal also listed the setbacks required by Mountain View County's land use bylaw (LUB) and noted that the application meets these setbacks.

7. Environmental risk of facilities

New MSF/MCAs which clearly meet or exceed AOPA requirements may be assumed to pose a low risk to surface and groundwater. There may be circumstances where, because of the proximity of a shallow aquifer, porous subsurface materials, or surface water systems, an approval officer may require groundwater or surface water monitoring for the facility. In this case a determination was made that those circumstances are not present, and monitoring is not required.

When reviewing a new authorization application for an existing CFO, NRCB approval officers assess the CFO's existing buildings, structures, and other facilities. In doing so, the approval officer considers information related to the site and the facilities, as well as results from the NRCB's environmental risk screening tool (ERST). The assessment of environmental risk focuses on surface water and groundwater. The ERST 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.) However, if those risks have previously been assessed, the approval officer will not conduct a new assessment unless site changes are identified that require a new assessment, or the assessment was supported with a previous version of the risk screening tool and requires updating. See NRCB Operational Policy 2016-7: Approvals, part 9.17.

In this case, the risks posed by Boom Holsteins' existing CFO facilities were assessed in 2013, 2015 and 2018 using the ERST. According to that assessment, the facilities posed a low potential risk to surface water and groundwater.

The circumstances have not changed since that assessment was done. As a result, a new assessment of the risks posed by the CFO's existing facilities is not required.

I also assessed the risk to the environment posed by the new free stall dairy barn and sand recovery storage shed using the ERST. I determined that both facilities pose a low risk to groundwater and surface water.

8. Exemptions

I determined that the proposed free stall dairy barn and sand recovery storage shed are located within the required AOPA setback from two water wells. As explained in Appendix B, an exemption to the 100 m water well setback is warranted due to construction and location upslope from the proposed barn and sand recovery shed.

9. Terms and conditions

Authorization RA24003 permits the construction of the free stall dairy barn and sand recovery storage shed.

Authorization RA24003 contains terms that the NRCB generally includes in all AOPA authorizations, 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, Authorization RA24003 includes conditions that generally address construction deadline, document submission and construction inspection. For an explanation of the reasons for these conditions, see Appendix C.

10. Conclusion

Authorization RA24003 is issued for the reasons provided above, in the attached appendices, and in Technical Document RA24003.

Authorization RA24003 must be read in conjunction with Boom Holsteins' previously issued permits Approval RA15059A and Authorization RA18041 which remain in effect.

April 10, 2024

(Original signed)
Sarah Neff
Approval Officer

Appendices:

- A. Consistency with the municipal development plan
- B. Exemptions from water well setbacks
- C. Explanation of conditions in Authorization RA24003

APPENDIX A: Consistency with the municipal development plan

Under section 22 of AOPA, an approval officer may only approve an application for an authorization or amendment of an authorization if the approval officer holds the opinion that the application is consistent with the “land use provisions” of the applicable municipal development plan (MDP).

This does not mean consistency with the entire MDP. In general, “land use provisions” cover MDP policies that provide generic directions about the acceptability of various land uses in specific areas.

“Land use provisions” do not call for discretionary judgements relating to the acceptability of a given confined feeding operation (CFO) development. Similarly, section 22(2.1) 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.”) “Land use provisions” also do not impose procedural requirements on the NRCB. (See NRCB Operational Policy 2016-7: Approvals, part 9.2.7.)

Boom Holsteins’ CFO is located in Mountain View County and is therefore subject to that county’s MDP. Mountain View County adopted the latest revision to this plan on September 14, 2022, under Bylaw #20/20.

As relevant here, section 2.0 of the MDP provides a “growth management strategy” that is reflected in the land use map in Figure 3 of the MDP. Because the land use designations in Figure 3 are not meant to be definitive, the MDP’s “growth management strategy” based on these designations is not considered to be a “land use provision”, but rather helps identify where the location of CFO’s would be more suited within the county. Because of this, I do not consider it to be relevant to my MDP determination.

At any rate, Boom Holsteins’ CFO is within the “Agricultural Preservation Area” marked on Figure 3. Section 2 of the MDP explains that the “majority” of this area is subject to the “applicable Land Use Policies outlined in section 3.0 of the MDP....”

Sub-section 3.3.15 precludes new CFOs within 1.6 km (1 mile) of any identified growth centre or an IDP with adjacent urban municipalities, as shown in Figure 3. Boom Holsteins is an existing CFO, so this policy is not relevant to my MDP consistency determination. Regardless, the CFO is not within this 1.6 km setback.

Sub-section 3.3.17 states that applications for new or expanding CFOs “shall meet all Provincial standards.” This sub-section likely isn’t a “land use provision” and therefore is not relevant to my MDP consistency determination. Regardless, Boom Holsteins’ application meets AOPA requirements, as discussed in part 5 above.

Section 3.3.18 states that following provincial approval, CFO construction “shall be subject to Mountain View County Road Use Agreement Policy”. This policy is outside of the NRCB’s jurisdiction, and therefore is not relevant to my MDP determination. The applicant is reminded that it is their responsibility to ensure CFO construction meets the requirements of this policy.

No other policies in section 3.0 preclude Boom Holsteins' application. Therefore, the proposed CFO construction is an acceptable land use within the Agricultural Preservation Area of the MDP.

For these reasons, I conclude that the application is consistent with the land use provisions of Mountain View County's MDP that I may consider.

APPENDIX B: Exemptions from water well setbacks

1. Water Well Considerations

The proposed dairy barn is to be located less than 100 m from two water wells. I have confirmed that the water wells are located approximately 25 m and 70 m from the barn during a site visit and through aerial photography. This is in conflict with the section 7(1)(b) of the Standards and Administration Regulation (SAR) under AOPA.

The proposed sand recovery storage shed is to be located less than 100 m from one water well. I have confirmed that the water well is located approximately 85 m from the shed during a site visit and through aerial photography. This is in conflict with the section 7(1)(b) of the Standards and Administration Regulation (SAR) under AOPA.

Section 7(2), however, allows for exemptions if, before construction, the applicant can demonstrate that the aquifer into which the water well is drilled is not likely to be contaminated by the manure storage facility (MSF)/manure collection area (MCA), and, if required, a groundwater monitoring program is implemented.

The potential risks of direct aquifer contamination from the MSF/MCA are presumed to be low if the applicant's proposed MSF/MCA meets AOPA's technical requirements to control runoff and leakage. Approval officers also assess whether the water well itself could act as a conduit for aquifer contamination.

In this case, I felt the following factors were relevant to determine the risk of aquifer contamination via the water wells:

- a. How the well was constructed
- b. Whether the well is being properly maintained
- c. The distance between the well and the proposed MSF/MCA
- d. Whether the well is up- or down-gradient from the MSF/MCA and whether this gradient is a reasonable indication of the direction of surface and groundwater flow between the two structures

These presumptions and considerations are based on NRCB Operational Policy 2016-7: Approvals, part 9.10.2.

The first water well:

Based on information provided by the applicant and from the Alberta Environment and Protected Areas (EPA) water well database, the water well located approximately 25 m northeast of the proposed dairy barn, and approximately 85 m northeast of the proposed sand recovery storage shed is likely EPA water well ID # 1035008. This well is reported to have been installed in 2003 and has a perforated or screened zone from 24.38 m to 36.58 m below ground level across stratigraphy. This well has an above ground casing. This well is used for domestic and non-domestic purposes. The well's log identifies protective layer or layers from 5.79 m to 12.8 m below ground level. The well has a driven seal from ground surface to 18.29 m below ground level. The well appeared to be in good condition at the time of my site inspection and is protected by a cement barrier and 4 steel posts surrounding the well. The well is up-gradient of the CFO and MSF/MCA.

The second water well:

Based on information provided by the applicant and from the Alberta Environment and Protected Areas (EPA) water well database, the water well located approximately 70 m east of the proposed dairy barn is likely EPA water well ID # 1245129. This well is reported to have been installed in 2002 and has an unknown perforated or screened zone. This well has an above ground casing. This well is used for domestic and non-domestic purposes. The well's log identifies protective layer or layers from 5.18 m to 39.01 m below ground level. The well has a driven and bentonite seal from ground surface to 39.93 m below ground level. The well appeared to be in good condition at the time of my site inspection and is protected inside a fully enclosed shed. The well is up-gradient of the CFO and MCA.

The NRCB has developed a "water well exemption screening tool," based on the factors listed above, to help approval officers assess the groundwater risks associated with a nearby water well.¹

In this case, the results of the water well exemption screening tool suggest that an exemption is likely as seen in Technical Document RA24003.

Under the regulation, an approval officer may require a groundwater monitoring program of the water wells in question. In my view, given meeting AOPA technical requirements and upslope nature of the wells, monitoring is not required.

Based on the above, I am prepared to grant an exemption to the 100 m water well setback requirement for the proposed dairy barn and sand recovery storage shed.

¹ A complete description of this tool is available under CFO/Groundwater and Surface Water Protection on the NRCB website at www.nrcb.ca.

APPENDIX C: Explanation of conditions in Authorization RA24003

Authorization RA24003 includes several conditions, as discussed below:

a. Construction Deadline

Boom Holsteins proposes to complete construction of the proposed new free stall dairy barn and sand recovery storage shed by December 31, 2025. It is my opinion that a longer construction deadline is more reasonable for the proposed scope of work, allowing for unexpected contractor or supply delays. Therefore, the deadline of November 30, 2026, is included as a condition in Authorization RA24003.

b. 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, Authorization RA24003 includes conditions requiring:

- a. the concrete used to construct the liner of the manure collection and storage portion of the new dairy barn shall meet the specification for category B (liquid manure shallow pits) and category C (solid manure – wet) in Technical Guideline Agdex 096-93 “Non-Engineered Concrete Liners for Manure Collection and Storage Areas.”
- b. the concrete used to construct the liner of the manure collection and storage portion of the sand recovery storage shed shall meet the specification for category D (solid manure – dry) in Technical Guideline Agdex 096-93 “Non-Engineered Concrete Liners for Manure Collection and Storage Areas.”
- c. Boom Holsteins shall provide documentation to confirm the specifications of the concrete used to construct the manure storage and collection portions of the new dairy barn and sand recovery storage shed.

The NRCB routinely inspects newly constructed facilities to assess whether the facilities were constructed in accordance with the permit requirements. To be effective, these inspections must occur before livestock or manure are placed in the newly constructed facilities. Authorization RA24003 includes a condition stating that Boom Holsteins shall not place livestock or manure in the manure storage or collection portions of the new dairy barn or manure contaminated sand in the sand recovery storage shed until NRCB personnel have inspected the dairy barn and sand recovery storage shed, and confirmed in writing that they meet the authorization requirements.