

Decision Summary RA22031

This document summarizes my reasons for issuing Authorization RA22031 under the *Agricultural Operation Practices Act* (AOPA). Additional reasons are in Technical Document RA22031. 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 December 12, 2022, Arie Van Os and Jannetje Griffioen (Van Os Dairy) submitted a Part 1 application to the NRCB to construct a new manure storage facility (MSF) at an existing dairy CFO.

The Part 2 application was submitted on April 24, 2023. On May 4, 2023, I deemed the application complete.

The proposed construction involves constructing a new dairy barn (40 m x 58 m).

The application also notified the NRCB of the proposed construction of a milk house and pump house. These facilities are both an “ancillary structure,” under section 1(1)(a.1) of the *Agricultural Operations, Part 2 Matters Regulation*, because they will not be used to store or collect manure or to confine livestock. Therefore, under section 4.1 of that regulation, these structures do not need to be permitted under the act.

a. Location

The proposed MSF is located at SE 18-46-24 W4M in the County of Wetaskiwin, roughly 2.4 km west of the City of Wetaskiwin on the north side of highway 13. The terrain is generally flat, with an overall slope to the north east. A small seasonal water course exists on the east edge of the property.

The CFO is already permitted under Authorization RA06015.

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 0.5 mile (804 m) from the CFO

A copy of the application was sent to the County of Wetaskiwin, which is the municipality where the CFO is located. No other municipalities were notified.

The CFO is not located near a river, stream, or canal; therefore no additional notice was required.

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 Health Services (AHS), Alberta Environment and Protected Areas (EPA), Alberta Agriculture and Irrigation (AGI), and Alberta Transportation and Economic Corridors (TRAN).

I also sent a copy of the application to Apex Utilities (formerly AltaGas Utilities Inc.) as they hold a utility right of way on the property.

Mr. Gordon Watt, a public health inspector, responded on behalf of AHS. Mr. Watt stated that AHS has no objections to this application. He also included some general best management practices, including water well management and nuisance control. The comments have been sent to the applicant for their information.

Ms. Laura Partridge, a senior water administration officer, responded on behalf of EPA. Ms. Partridge stated that there is an existing water registration on the property; however, the annual water requirement for the dairy exceeds what is currently authorized. She provided links and resources to assist the applicant in obtaining additional water licensing. The applicant is reminded that they are required to obtain adequate water licensing.

An administrator from AGI responded and provided the name of the inspector assigned to this site.

Ms. Ashley Bridgwater, an administrative assistant, responded on behalf of Apex Utilities Inc. Ms. Bridgwater stated that Apex had no comments or concerns regarding the application.

No other responses were received.

4. Municipal Development Plan (MDP) consistency

I have determined that the proposed construction is consistent with the land use provisions of the County of Wetaskiwin'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 well setbacks are discussed in the following parts of this decision summary.

6. Responses from the 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. Not all affected parties are “directly affected” under AOPA.

Municipalities that are affected parties are identified by the act as “directly affected.” The County of Wetaskiwin is an affected party (and directly affected) because the proposed facility is located within its boundaries.

Mr. Jarvis Grant, a development officer, provided a written response on behalf of the County of Wetaskiwin. Mr. Grant stated that the application is consistent with the land use provisions of the County of Wetaskiwin’s municipal development plan. The application’s consistency with the County of Wetaskiwin’s municipal development plan is addressed in Appendix A, attached.

Mr. Grant also listed the setbacks required by the County of Wetaskiwin’s land use bylaw (LUB) and noted that the application meets these setbacks.

7. Environmental risk of facilities

New manure storage facilities or manure collection areas (MSF/MCA) which clearly meet or exceed AOPA requirements are automatically assumed to pose a low risk to surface and groundwater. However, there may be circumstances where, because of the proximity of a shallow aquifer, or porous subsurface materials, an approval officer may require groundwater monitoring for the facility. In this case a determination was made, and groundwater monitoring is not required.

For the sake of efficiency, I first assessed the CFO’s existing earthen manure storage (EMS) using the environmental risk screening tool (ERST). This appears to be the CFO’s highest risk facility, because it contains liquid manure, and is an outdoor, uncovered facility. The assessment found that this facility poses a low potential risk to both groundwater and surface water.

Because this is the CFO’s highest risk facility, I presume that the CFO’s other existing facilities also pose a low potential risk to both groundwater and surface water. From a review of other information gathered in the course of this application, I am satisfied that the screening provided by the ERST is adequate and that the presumption is not rebutted. A further assessment of the risks posed by these other facilities, using the ERST, is not necessary.

8. Exemptions

I determined that the proposed dairy barn is located within the required AOPA setback from a water well. As explained in Appendix B, an exemption to the 100 metre water well setback is warranted due to the upslope location of the water wells, and the indoor nature of the dairy barn.

9. Terms and conditions

Authorization RA22031 permits the construction of the the new dairy barn with attached milk house and pump house.

Authorization RA22031 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 RA22031 includes conditions that generally address the construction deadline, document submission, decommissioning, and construction inspection. For an explanation of the reasons for these conditions, see Appendix C.

10. Conclusion

Authorization RA22031 is issued for the reasons provided above, in the attached appendices, and in Technical Document RA22031.

Authorization RA22031 must be read in conjunction with Van Os Dairy's deemed registration, including NRCB previously issued Authorization RA06015, which remains in effect.

June 27, 2023

(Original signed)
Lynn Stone
Approval Officer

Appendices:

- A. Consistency with the municipal development plan
- B. Exemptions from water wells setbacks
- C. Explanation of conditions in Authorization RA22031

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.

Conversely, “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 8.2.5.)

Van Os Dairy’s CFO is located in the County of Wetaskiwin and is therefore subject to that county’s MDP. The County of Wetaskiwin adopted the latest revision to this plan on April 11, 2023 under Bylaw #2023/05.

As relevant here, section 11.6 of the MDP aims to “support” CFOs while “minimizing conflicts with surrounding land uses and negative impacts on the environment through land stewardship best practices.” Additionally, the MDP notes that, while CFOs are under provincial jurisdiction, it is the county’s intent to “restrict new or expanded CFOs only in those locations where they are incompatible with neighbouring land uses or negatively impact sensitive environmental features”. The MDP also reports the county’s view that, the Municipal Government Act “requires” the county to identify where new CFOs may be located.

Objective 11.6.3 states 5 areas in which the county prohibits new or expanded CFOs within specified distances of the areas listed in the objective. Van Os’ CFO is located outside all the specified setbacks, and therefore, the application is consistent with this objective.

Objective 11.6.4 states that, notwithstanding 11.6.3, the county will support expanding or upgrading existing CFOs where “upgrades in technology and/or practices result in improved manure management and/or mitigation of negative impacts on surrounding land uses and the environment”. Van Os’ CFO is not within any of the setbacks stated in 11.6.3 and therefore, this objective does not apply.

Objective 11.6.5 refers to CFOs within the setbacks in 11.6.3 that are “not in operation for a period of ten (10) years or more”, in which case the county considers these operations to be “without proper authorization to resume operation or expand”. This is not a land use provision and therefore, I won’t consider it; regardless, I am not aware of a 10-year gap in operation and as such, objective 11.6.5 does not apply to this application.

Objective 11.6.6 states the county’s support for “new residences where the residence is associated with a CFO within the Minimum Distance Separation of an existing CFO”. I interpret this to be a requirement relating to the development of residences near CFO’s. The permitting of

residences is within the municipality's jurisdiction. Therefore, this objective is outside of my land use provision consistency determination.

Objective 11.6.7 states that the county requires CFO proponents to "demonstrate that their development will not result in environmental impacts from their proposed operation" and may recommend to the NRCB that an "Environmental Impact Assessment" be submitted along with the application. These are likely not land use provisions. Nevertheless, the county has made no such request for this application.

Objective 11.6.8 states that the county "requests" the NRCB to include conditions in their decisions requiring CFO proponents to "enter into agreements with the county, which may include dust control, road use and off-site levies". The NRCB does not have direct responsibility for regulating road use. Section 18 of the Municipal Government Act gives counties "direction, control and management" of all roads within their borders. In addition, municipalities have the knowledge, expertise, and jurisdiction to implement and enforce road use agreements. Nevertheless, the county has made no such request for this application.

For the above reasons, I consider the application to be consistent with the land use provisions of the County of Wetaskiwin's MDP. The county's response to the application confirms this conclusion.

APPENDIX B: Exemptions from water and wells setbacks

1. Water Well Considerations

The proposed dairy barn is to be located less than 100 m from water wells. I have confirmed that two water wells are located approximately 5 and 50 m from it during a site visit. This is in conflict with 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 well:

- a. How the well was constructed
- b. Whether the well is being properly maintained
- c. The indoor nature of 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 8.7.1.

The water well: 235655

Based on information provided by the applicant and from the Alberta Environment and Protected Areas (EPA) water well database, the water well located approximately 5 m S of the dairy barn is likely EPA water well ID #235655. This well is reported to have been installed in 1977 and has an above ground casing. The drilling report does not provide any information on the seal or perforations; however, it appears to have a protective clay layer from surface to 35.97 m below grade, and a productive water-bearing layers intermittently through 63.4 m to 89.31 m below grade. This well is used for non-domestic purposes. I note that in my conversations with the applicant, the water well is only used presently as a back up well. The well appeared to be in good condition at the time of my site inspection and its casing was protected by the edge of the existing barn. Given its location next to the proposed dairy barn, I would consider the well to be level (cross-gradient) to the proposed barn.

The water well: 235657

Based on information provided by the applicant and from the Alberta Environment and Protected Areas (EPA) water well database, the water well located approximately 50 m S of the dairy barn is likely EPA water well ID #235657. This well is reported to have

been installed in 1973 and has an above ground casing. The drilling report does not provide any information on the seal or perforations; however, it appears to have a protective clay layer from surface to 22.86 m below grade, and productive water-bearing layers intermittently through 53.64 m to 96.01 m below grade. This well is used for non-domestic purposes. I note that in my conversations with the applicant, the water well is only used presently as a back up well. The well is upgradient to the proposed barn.

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 for both wells as seen in Technical Document RA22031.

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, low risk, and indoor nature of the dairy barn, monitoring is not required.

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 RA22031

Authorization RA22031 includes several conditions, discussed below:

a. Construction Deadline

Van Os Dairy proposes to complete construction of the proposed new dairy barn with attached milk house and pump house by May 2024. In my opinion, allowing for two full construction seasons would be more appropriate, to allow for unforeseen construction delays. Accordingly, a deadline of June 30, 2025 is included as a condition in Authorization RA22031.

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 RA22031 includes conditions requiring:

- a. the concrete used to construct the liner of the manure collection and storage portion of the dairy barn to 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. Van Os Dairy to provide documentation to confirm the specifications of the concrete used to construct the manure storage and collection portions of the dairy barn.

The NRCB routinely inspects newly constructed facilities to assess whether the facilities were constructed according to their required design specifications. To be effective, and to reduce risk to the operator, these inspections must occur before livestock or manure are placed in the newly constructed facilities. Authorization RA22031 includes a condition stating that Van Os Dairy shall not place livestock or manure in the manure storage or collection portions of the new dairy barn until NRCB personnel have inspected the dairy barn and confirmed in writing that it meets the authorization requirements.

c. Decommissioning

Van Os Dairy will need to decommission the existing calf barn, and part of the heifer pen to construct the proposed new dairy barn. Therefore, a condition will be included requiring this to be completed. This decommissioning must be completed in accordance with Technical Guideline Agdex 096-90, “Closure of Manure Storage Facilities and Manure Collection Areas.”