

Decision Summary RA24025

This document summarizes my reasons for issuing Authorization RA24025 under the *Agricultural Operation Practices Act* (AOPA). Additional reasons are in Technical Document RA24025. 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 May 24, 2024, Edwin and Sandra Spruit operating as Spruit Farms Ltd. (Spruit Farms) submitted a Part 1 application to the NRCB to renovate a manure collection and storage liner within an existing barn at an existing swine CFO.

The Part 2 application was submitted on May 24, 2024, and I deemed the application complete on that date.

The proposed modification involves:

- Renovating two pits within the existing “dry sow barn 2” – 13 m x 2.55 m x 1.25 m deep and 3 m x 8.5 m x 1.25 m deep

The purpose of the barn renovation is to remove the old shallow pits and solid floor from a portion of the “dry sow barn 2” and replace it with newer manure collection and storage pits.

a. Location

The existing CFO is located on a 50-acre parcel at SE 26-37-28 W4M in Red Deer County, roughly 5.5 km south of Red Deer. The terrain slopes gently to the southeast. The closest body of water is a slough approximately 155 meters from the earthen manure storage (EMS).

b. Existing permits

The CFO is already permitted under Authorization RA21022, Approval RA14007, as amended by RA14007B and Authorization RA16036 which the NRCB issued on June 9, 2021, January 29, 2015, October 7, 2015, and August 24, 2016, respectively.

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 1.5 miles (2,414 m) from the CFO

A copy of the application was sent to Red Deer 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 Transportation and Economic Corridors (TEC).

I also sent a copy of the application to Alta Link Management Ltd. and Crossroads Gas Co-op Ltd. as they are right of way holders.

I received a response from Ms. Anne Han, a development and planning tech with TEC, stating TEC has no objections to the application.

I did not receive a response from any other organization.

4. Municipal Development Plan (MDP) consistency

I have determined that the proposed modification is consistent with the land use provisions of Red Deer 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 modification:

- Meets the required AOPA setbacks from all nearby residences (AOPA setbacks are known as the "minimum distance separation" requirements, or MDS) in accordance with section 3(5)(c) of the Standards and Administration Regulation
- 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

I determined that the barn that is proposed to be renovated is located within the required AOPA setback from three existing water wells. However, as explained in Appendix B, this barn warrants an exemption from the 100 m water well setback due to the wells' construction and location upslope from the barn.

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 regarding water well setbacks 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." Red Deer County is an affected party (and directly affected) because the proposed modification is to an existing facility located within its boundaries.

Mr. Richard Moje, a planner with Red Deer County, provided a written response on behalf of Red Deer County. Mr. Moje stated that the application is consistent with Red Deer County's land use provisions of the municipal development plan. The application's consistency with Red Deer County's municipal development plan is addressed in Appendix A, attached.

Mr. Moje also listed the setbacks required by Red Deer County's land use bylaw (LUB) and noted that the application meets these setbacks.

7. Environmental risk of facilities

New MCA 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. An assessment was made, and groundwater monitoring is not required for this facility.

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 Spruit Farms' existing CFO facilities were assessed in 2021, 2016, and in 2014 using the ERST. According to these assessments, the facilities posed a low potential risk to surface water and groundwater.

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

8. Exemptions

Authorization RA21022 included an exemption for the "dry sow barn 2's" (referred to as "dry sow 3 in RA21022) proximity to water wells located within 100 m of it. I have completed a new exemption screening as Spruit Farms has proposed to renovate the barn with a new manure collection and storage liner. What is proposed now may impact the previous exemption's considerations.

I determined that the proposed new pits within dry sow barn 2 are located within the required AOPA setback from three water wells. As explained in Appendix B, an exemption to the 100 m water well setback is warranted due to the wells' locations upgradient of the barn, the wells' construction, and how the barn is proposed to be renovated.

9. Terms and conditions

Authorization RA24025 permits the renovation of the manure collection and storage portions of the pits in "dry sow barn 2".

Authorization RA24025 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 RA24025 includes conditions that generally address a construction deadline, document submission and construction inspection. For an explanation of the reasons for these conditions, see Appendix C.

10. Conclusion

Authorization RA24025 is issued for the reasons provided above, in the attached appendices, and in Technical Document RA24025.

Authorization RA24025 must be read in conjunction with previously issued permits Approval RA14007, Amendment RA14007B as well as Authorizations RA16036 and RA21022, all of which remain in effect.

July 31, 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 RA24025

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.)

Spruit Farms’ CFO is located in Red Deer County and is therefore subject to that county’s MDP. Red Deer County adopted the latest revision to this plan on September 21, 2021, under Bylaw No. 2020/20.

Section 3.5 of the MDP relates to CFOs. The subsections relevant to this application are discussed below:

3.5.1 States that the County “encourages the development of Confined Feeding Operations (CFOs) at appropriate locations, as a means of supporting the local economy and creating employment.” This subsection likely isn’t a relevant “land use provision” but it provides a general context for interpreting and applying the other parts of section 3.5.

3.5.2 Lists six “criteria used [by the County] in responding to applications for new CFOs or expansions to existing CFOs...” This subsection is titled “Criteria for Input” (emphasis added). This subsection is intended to be used only by the County to prepare its responses to AOPA applications. Therefore, the criteria are procedural in nature and not a land use provision, therefore they are not directly relevant to my MDP consistency determination.

In addition, the criteria require site and CFO-specific discretionary considerations rather than providing generic direction for appropriate land uses. As such, the six criteria are not considered by the NRCB to be “land use provisions.” (See Operational Policy 2016-7: Approvals, part 9.2.7) Therefore, they are not relevant to this MDP consistency determination.

3.5.3 Contains three parts under the heading “Conditions for County Support of CFOs”:

a. States that “[t]he [c]ounty shall provide input to the Natural Resources Conservation Board (NRCB) in responding to applications for new or expanded CFOs.” As with subsection 3.5.2, discussed above, this subsection focuses on the County’s response and therefore is not a land use provision and is not relevant to my MDP consistency determination.

- b. States that the establishment of new CFOs shall be supported if they:
 - i. are not located within an “Exclusion Area Buffer”, as illustrated on Map 2
 - ii. are compatible with adjacent land uses
 - iii. are not located within an Urban Fringe Area (pursuant to Policy 3.4.5)

This application is for the renovation of an existing barn at an already existing CFO, not the establishment of a new one, and therefore this section is not applicable to this application.

- c. Relates to expanding CFOs and states that “applications made to the NRCB ... may be supported if they:
 - i. are located within an Intermunicipal Development Plan (IDP) and are in accordance with the policies contained within the IDP regarding new CFOs and expanding CFOs; and
 - ii. are compatible with adjacent land uses.”

Spruit Farms is located in an area covered by the City and County of Red Deer IDP. The IDP identifies the CFO as being in an area for Agriculture or Open Space. Under the IDP, the permitted uses for this area include the continuance of existing uses, and agricultural production including clustered farm dwellings, accessory buildings, secondary dwellings for agricultural purposes, minor home occupations, and other such development as the two municipalities shall agree on from time to time. (IDP section 3.4.3 (d)(III)). Spruit Farms’ CFO is an existing use and is for agricultural production, so it is therefore compatible with adjacent land uses in the IDP and LUB.

3.5.4 Titled “Maintain Minimum Distance Separation (MDS) from an Existing CFO”. This subsection is intended to be used only by the County to approve rezoning and residential applications. Therefore, the criteria are procedural in nature and not a land use provision, therefore they are not directly relevant to my MDP consistency determination.

3.5.5 States that the County “does not support new CFOs being established within a minimum of 1.6 kilometres (1 mile), or as determined by the NRCB, of any recognized approved and future development area. This includes urban fringe or an Intermunicipal Development Plan boundary, or into an area of an existing or approved residential subdivision situated within the County, or a hamlet.” Spruit Farms’ CFO is an existing CFO; therefore, this section does not apply. Regardless, the CFO is not located in any of the areas indicated in this section.

For these reasons, I conclude that the application is consistent with the land use provisions of Red Deer County’s MDP that I may consider.

APPENDIX B: Exemptions from water well setbacks

1. Water Well Considerations

The proposed new pits in dry sow barn 2 are to be located less than 100 m from water wells. I have confirmed that 3 water wells are located approximately 30 m, 60 m, and 65 m from the barn during a site visit, from information provided by the applicant, and from the Alberta Environment and Protected Areas (EPA) database. This conflicts 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 collection area (MCA), and, if required, a groundwater monitoring program is implemented.

The potential risks of direct aquifer contamination from the MCA are presumed to be low if the applicant's proposed 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 distance between the well and the proposed MCA
- d. Whether the well is up- or down-gradient from the MCA and whether this gradient is a reasonable indication of the direction of surface and groundwater flow between the two structures
- e. The contents of the application related to the proposed manure collection and storage liner

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

Water well ID 102577

Based on information provided by the applicant and from the Alberta Environment and Protected Areas (EPA) water well database, the water well located approximately 60 m north of the dry sow barn 2 is likely EPA water well ID # 102577. This well is reported to have been installed in 1977. The report from EPA does not specify a screened or perforated zone. However, the report indicates the presence of a driven seal at 44.2 m. Based on this, I am of the opinion that it's screened or perforated zone is below the driven seal which would be across sandstone and shale layers. The well report indicates the presence of clay layers from ground surface to 11.9 m below ground. A representative of the CFO stated that this well is not presently used. Despite not being actively used for water, the well appeared to be in a good condition and was in an area that protects it from damage from vehicles and equipment. The well has an above ground casing and is up-gradient of the proposed renovations to dry sow barn 2.

Water well ID 261980

Based on information provided by the applicant and from the Alberta Environment and Protected Areas (EPA) water well database, the water well located approximately 30 m north of the dry sow barn 2 is likely EPA water well ID #261980. This well is reported to have been installed in 1995. It has a perforated or screened zone from 32 m to 35.1 m below ground level across sandstone. The well's log identifies protective layers of sandy clay or clay from 0.7 m to 11.9 m below ground level. The well has a driven seal at 30.5 m below ground level. This well is used for domestic and non-domestic purposes. The well is located adjacent to a commodity shed and appeared to be in good condition at the time of my site inspection. The well has above ground casing and is up-gradient of dry sow barn 2.

Water well ID 1470607

Based on information provided by the applicant and from the Alberta Environment and Protected Areas (EPA) water well database, the water well located approximately 65 m northeast of the dry sow barn 2 is likely EPA water well ID #1470607. This well is reported to have been installed in 2009. It has a perforated or screened zone from 21.3 m to 29 m below ground level across shale and sandstone layers. The well's log identifies protective layers of sandy clay from 0.6 m to 11.6 m below ground level. There is a bentonite seal from ground surface to 21 m below ground level across the sand layers. A representative of the CFO stated that this well is not presently used. Despite this, the well appeared to be in good condition and is located in an area which protects it from damage. The well has above ground casing and is up-gradient of dry sow barn 2.

The proposed barn renovation includes a manure collection and storage liner that meets AOPA requirements with conditions discussed in the next appendix.

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 RA24025. Based on this, I am prepared to grant an exemption to the 100 m water well setback requirement for the "dry sow barn 2's" renovation.

Despite the above, previously issued Approval RA14007 includes a condition that requires annual testing of water wells located within 100 m of the CFO. The above determination does not affect the previously existing permit condition.

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 RA24025

Authorization RA24025 includes several conditions, discussed below:

a. Construction above the water table

Section 9(3) of the Standards and Administration Regulation under the *Agricultural Operation Practices Act* (AOPA) requires the bottom of the liner of a manure storage facility or manure collection area to be not less than one metre above the water table of the site “at the time of construction.”

The application states that the pits in the barn renovation are to be as deep as 1.25 m. Based on the application, the water table maybe as shallow as 2 m below ground. Despite this, when a 4 m deep (approximately 3 m below ground) new manure pump pit was constructed at the CFO in 2016 (under Authorization RA16036), there were no reports of the water table being encountered.

Based on this, the proposed barn renovation will likely meet the one metre requirement of section 9(3). However, because the height of the water table can vary over time, a condition is included requiring Spruit Farms to cease construction and notify the NRCB immediately if the water table is encountered during construction.

b. Construction Deadline

Spruit Farms proposes to complete construction of the proposed modifications by June 2025. This timeframe is considered to be reasonable for the proposed scope of work. The deadline of June 30, 2025, is included as a condition in Authorization RA24025.

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, Authorization RA24025 includes conditions requiring:

- a. the concrete used to construct the liner of the manure collection and storage portion of the new pits to meet the specification for category B (liquid manure shallow pits) in Technical Guideline Agdex 096-93 “Non-Engineered Concrete Liners for Manure Collection and Storage Areas.”
- b. Spruit Farms to provide documentation to confirm the specifications of the concrete used to construct the manure storage and collection portions of the new pits.

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 RA24025 includes a condition stating that Spruit Farms shall not place manure in the manure storage or collection portions of the new pits until NRCB personnel have inspected them and confirmed in writing that they meet the authorization requirements.