

Decision Summary RA19003

This document summarizes my reasons for issuing Approval RA19003 under the *Agricultural Operation Practices Act* (AOPA). Additional reasons are in Technical Document RA19003. That document and the full application are available from the decisions search engine on the Natural Resources Conservation Board (NRCB) website at www.nrcb.ca. 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 February 11, 2019, Hutterian Brethren Church of Starland (Starland Colony) submitted a Part 1 application to the NRCB to construct a new facility at an existing multi species confined feeding operation (CFO). The proposed expansion involves constructing a new layer barn (94.8 m x 18.3 m) and increasing the permitted livestock numbers from 5,600 layers to 20,000 layers. The Part 2 application was submitted on February 21, 2019. On February 27, 2019, I deemed the application complete.

The application also includes construction of an egg storage and cooling building. This building is an “ancillary structure,” under sections 1(b.6) of AOPA and 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.)

a. Location

The existing CFO is located at NW 14-32-19 W4M in Starland County, roughly 15 kilometres north east of Morrin, Alberta. The site has a gentle slope trending downward to the east. The closest common bodies of water are two seasonal creeks, one approximately 984 metres to the west, and one approximately 200 metres east of the site. A small dugout exists on the south side of the colony, cross gradient from the CFO facilities.

b. Existing permitted facilities

The CFO was originally permitted by Starland County on an unknown date in 1997 under development permit # 15/97. This permit allowed the expansion of the existing hog facilities. The CFO’s deemed facilities are listed in an appendix of Approval RA19003. The CFO’s grandfathered status is explained in Appendix C, attached.

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 1.5 miles. (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. Starland County is an affected party (and therefore also a directly affected party) because the proposed facility 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 Drumheller Mail on February 27, 2019 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 Starland County, Alberta Health Services (AHS), and Alberta Environment and Parks (EP). Seven courtesy letters were sent to people identified by Starland County as owning or residing on land within the affected party radius.

3. Responses from the municipality and referral agencies

Ms. Laura Partridge, a water administration officer with AEP, provided a written response on behalf of AEP. Ms. Partridge stated that additional *Water Act* licensing is required. The applicant is reminded of this requirement by way of this decision.

Mr. Keith Lee, a public health inspector with AHS, provided a written response on behalf of AHS. In his response, Mr. Lee summarized the application, as well as the water wells on site, proximity to surface water, manure stockpiling, and disposal of dead animals. Mr. Lee concluded that he had no objections to this application.

No response was received from Starland County by the deadline for comments from referral agencies. After the deadline had passed, I sent a reminder to the manager of municipal services. No response was received from the second request.

No responses were received from individuals or other non-government parties.

4. Environmental risk screening of existing and proposed facilities

As part of my review of this application, I assessed the risk to surface water and groundwater posed by the CFO’s existing and 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/Guides on the NRCB website at www.nrcb.ca.)

For the sake of efficiency, I first assessed the CFO's existing hog earthen manure storages (EMS), hog barn, dairy barn, and dairy pens using the risk screening tool. These appear to be the CFO's highest risk facilities, because they contain liquid manure (with the exception of the dairy pens), and are the closest proximity to surface water bodies and water wells. My risk assessment found that these facilities pose a low risk to groundwater and surface water. Because these are the CFO's highest risk facilities, I presume that the CFO's other existing facilities also pose a low risk to both groundwater and surface water. Therefore, a further assessment of the risks posed by these other facilities, using the NRCB's environmental risk screening tool, is not necessary.

I also assessed the proposed new layer barn using the NRCB's risk screening tool, and determined that it would pose a low risk to groundwater and surface water.

5. Other factors considered

The application meets all relevant AOPA requirements, with the terms and conditions summarized in part 6.¹

In addition, the proposed construction is consistent with the land use provisions of Starland County's land use bylaw, as discussed in Appendix A. (This County does not have a municipal development plan).

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

- 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

As stated in Technical Document RA19003, several existing facilities are within the required AOPA setback from water wells. Because these facilities are existing buildings and structures, they do not have to meet AOPA requirements under the *Standards and Administration Regulation* unless there is a risk to the environment. Under the ERST, I determined a low potential risk to the environment for those facilities.

In addition, I assessed the effects of the proposed construction on the environment. Consistent with NRCB policy, I presumed that these effects are acceptable because the application meets all of AOPA's technical requirements and no concerns were raised from directly affected parties. I also determined that the application's effects on the economy and community are acceptable,

1. For a summary of these requirements, please see the [2008 AOPA Reference Guide](http://www.nrcb.ca/Guides), available on the NRCB website at www.nrcb.ca/Guides).

and that the proposed construction is an appropriate use of land. Under NRCB policy, these determinations are based on the application's consistency with the land use bylaw (as the County does not have an MDP). (See NRCB Operational Policy 2016-7: *Approvals*, part 8.7.3)

6. Terms and conditions

Approval RA19003 specifies the new permitted livestock capacity as 700 sows farrow to finish, 20,000 layers, 3,200 layer pullets, 85 milking cows (plus dries and replacements), 1,300 ducks, and 200 geese, and permits the construction of the new layer barn.

Approval RA19003 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.

a. New conditions

In addition to the terms described above, Approval RA19003 includes conditions that:

- Set a deadline of November 30, 2020 for the approved construction to be completed
- Require the concrete used to construct the liner of the manure collection and storage portion of the layer barn to 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”
- Require written documentation that the concrete used for the manure collection and storage areas meets the required specifications.
- Prohibit Starland Colony from placing manure or livestock in the new layer barn until the facility has been inspected by the NRCB following its construction

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

b. Conditions carried forward from previously issued permits

For clarity, and pursuant to NRCB policy, I consolidated Starland County Development Permit #15/97 with Approval RA19003 (see NRCB Operational Policy 2016-7: *Approvals*, part 10.5). Consolidating permits generally involves carrying forward all relevant terms and conditions in the existing permits into the new permit, with any necessary changes or deletions of those terms and conditions, and then cancelling all existing permits once the new permit is issued. This consolidation is carried out under section 23 of AOPA, which enables approval officers to amend AOPA permits on their own motion.

Therefore, in addition to containing the new terms and conditions summarized above, Approval RA19003 includes all existing terms and conditions in 15/97, except the terms and conditions noted below. Construction conditions that are being carried forward and that have been met are identified and included in an appendix to the new approval.

Pursuant to section 23 of AOPA (approval officer amendments), I have determined that several conditions from Development Permit #15/97 should be deleted and therefore are not carried forward to Approval RA19003. My reasons for deleting these conditions are provided in Appendix B.

7. Conclusion

Approval RA19003 is issued for the reasons provided above, in the attached appendices, and in Technical Document RA19003.

Starland Colony's deemed approval, and municipal development permit #15/97, are therefore cancelled, unless Approval RA19003 is held invalid following a review and decision by the NRCB's board members or by a court, in which case the deemed approval and municipal development permit #15/97 will remain in effect.

May 13, 2019

(Original Signed)
Lynn Stone
Approval Officer

Appendices:

- A. Consistency with the municipal development plan
- B. Explanation of conditions in Approval RA19003
- C. Grandfathering determination

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).

Section 1(d.2) of AOPA defines an MDP as an MDP “within the meaning of the provincial *Municipal Government Act*” (MGA). Section 632(1) of the MGA, in turn, requires councils of every municipality to adopt a MDP; section 632(2.1) requires that if a municipality does not have a MDP within three years (of the coming into force of this subsection), the municipality must adopt a MDP. This means that municipalities that do not currently have a MDP must have one by July 1, 2021.

Starland County has not yet adopted a MDP.

For small municipalities that lack an adopted MDP, approval officers will consider the municipalities’ land use bylaws for purposes of the MDP consistency requirement in section 20(1) of AOPA. (See NRCB Operational Policy 2016-7: *Approvals*, part 8.2.3; *DeJong*, RFR 2006-11 at 2-3.)

Under Starland County’s land use bylaw (LUB) # 1125 (adopted on June 30, 2017), the subject land is currently zoned as Agricultural Intensive District (AI) as described on Map 16 of the LUB. CFOs are listed as discretionary use for this land use category. This application is an expansion of an existing permitted CFO, and as such, the use of the land for a CFO is presumed to be acceptable.

Starland County’s LUB references other special requirements (23(5)) including restrictions in environmentally significant areas, heritage and cultural sites, valleys of water ways, municipal water source areas, municipal boundaries, recreational or tourist sites, and “very high risk” under groundwater assessments. With the exception of the groundwater assessment provision report (that I obtained from the consultant’s website) I was unable to obtain the referenced documents. The documents were not available on the County’s website, nor were they attached in the LUB. Starland County did not comment on the application, where it is common practice for municipalities to indicate in their response if the proposed application is in a restriction area. Many of the provisions listed are not recent developments; for example, the environmentally significant areas report was dated in 1991. Geological constraints such as the location of water ways are unlikely to change over time. Given that Starland County issued a development permit for this site in 1997, it is reasonable to presume that at that time, this CFO did not exist in any restriction areas. Given the information available to me at this time, I conclude that the application is consistent with the LUB.

APPENDIX B: Explanation of conditions in Approval RA19003

Approval RA19003 includes several new conditions, discussed in section 1 below. Approval RA19003 also carries forward all the conditions from the previous permit (Starland County Development Permit 15/97), except those discussed in section 2 below. All conditions in previous permits will be included in an Appendix to Approval RA19003.

1. New conditions in Approval RA19003

a. Construction Deadline

Starland Colony proposes to complete construction of the proposed new layer barn by November 30, 2020. This time-frame is considered to be reasonable for the proposed scope of work. The deadline of November 30, 2020 is included as a condition in Approval RA19003.

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, Approval RA19003 includes conditions requiring Starland Colony to provide documentation to confirm the specifications of the concrete used to construct the manure storage and collection portion of the layer barn.

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 RA19003 includes a condition stating that Starland Colony shall not place livestock or manure in the manure storage portions of the new layer barn until NRCB personnel have inspected the barn and confirmed in writing that it meets the approval requirements.

2. Conditions not carried forward from Starland County 15/97

Approval officer comments: The first page of Starland County permit #15/97 is essentially unreadable due to the poor quality of copying. I contacted the Colony and they were unable to find a copy. I also contacted the County; they advised that they lost their copy in an office fire. Pages 2-4 of the permit contain the conditions of the permit, and are legible.

1. Liquid Manure Storage:

- a) Use of the existing lagoon storage facilities shall be incorporated into the development while maintaining and preventing the contamination of ground water, prevent contaminated surface water from leaving the property and not contribute to undue odour nuisances,*

This condition is redundant as many of the specified requirements fall under AOPA and therefore will be deleted and not carried forward. (See Operational Policy 2016-1: *Amending Municipal Permit Conditions*, section 2.1).

- b) Upon complaints and evidence relating to the nuisance of odours emitting from the use of the lagoons, it shall be at the discretion of the Development Officer to take the necessary actions required to lessen or decrease the impact to the surrounding properties. This action may include the incorporation of and use of straw material over the surface of the lagoon during its operation in conjunction with the proposed wind screening on the perimeter of the lagoon. Wind screening methods shall be in accordance with the approved methods established by Alberta Agriculture and to the*

satisfaction of the Development Officer.

This condition is outdated, given the NRCB's role since 2002 in regulating CFOs. The NRCB's inspectors receive complaints relating to odour and nuisance. Should an inspector receive a complaint about this, or any other CFO, the inspector will review the site and apply the NRCB's odour protocol, if necessary. Furthermore, I did not observe any wind screening materials in effect on my site inspection. Therefore, this condition will be deleted and not carried forward. (See Operational Policy 2016-1: *Amending Municipal Permit Conditions*, section 2.1)

- c) *The integrity of the existing lagoons structures shall be qualified by the incorporation of ground water monitoring test holes strategically located around the perimeter of the lagoons. The number and location of monitoring wells shall coincide with Alberta Environmental regulations with a minimum of one test hole per 2 ha. Of lagoon area or a minimum of 5 test holes. Failure to qualify existing lagoon as environmentally safe shall require the involvement of Alberta Environment and the developer to correct the situation to the satisfaction of the Development Officer.*

This condition is outdated. The operator believes this condition was from an old 1970s EMS that was decommissioned in the 1990s. The current two-cell EMS does not have monitoring wells around it. As part of this application, I completed a risk assessment of the CFO that included the existing EMSs. The assessment found that the EMSs to be low risk. Under current NRCB policy, a low risk EMS would not require a leak detection system. Therefore, this condition will be deleted and not carried forward.

2. Land Application of Manure:

- a) *The application of manure or effluent on agricultural lands shall first consider the meteorological, topographical and soil conditions of those lands and the prescribed rate of application suitable to those soil conditions. Those lands identified for use of application of manure are Sections 21, 22 & 23. Twp. 32, Rge. 19 W4 and the N ½ of Sections 14, 15 & 16, Twp. 32, Rge 19 W4. Any other lands intended to be used shall require written notice of intent accompanied with a letter of authorization from the landowner for approval by the Development Officer.*

AOPA and its regulations supersede the requirements listed here. AOPA has specific regulations relating to the suitability of lands for spreading manure on, and setbacks to bodies of water. Starland Colony has included the above parcels of land for manure spreading, as well as many others, as part of this application. Therefore, this condition will be deleted and not carried forward. (See Operational Policy 2016-1: *Amending Municipal Permit Conditions*, section 2.1)

- b) *The developer shall ensure that all manure, including lagoon effluents remains upon the land upon which it is placed*

AOPA and its regulations supersede this condition. Several regulations are in place to minimize the risk of manure leaving the property. Therefore, this condition will be deleted and not carried forward. (See Operational Policy 2016-1: *Amending Municipal Permit Conditions*, section 2.1)

- c) *Any expansion to manure storage facilities will require a separate development permit approval prior to construction*

This condition is redundant, as CFO operators are required to obtain a permit from the NRCB for any construction or modification to any manure storage facilities. Therefore, this condition will not be carried forward. (See Operational Policy 2016-1: *Amending*

Municipal Permit Conditions, section 2.1)

- d) *At least seven days written notice of the developer's intention to inject effluent from the hog lagoon shall be given by the developer to the Development Officer.*

This condition is obsolete, as the NRCB now has jurisdiction over manure spreading. Therefore, this condition will not be carried forward. (See Operational Policy 2016-1: *Amending Municipal Permit Conditions, section 2.1)*

8. *(AO note-there is no condition "7" in permit 15-97) Dead animals shall be properly handled, stored and/or disposed of within 48 hours of death to minimize odours, flies, and transmission of disease and threat of pollution. On-farm disposal shall be carried out in accordance with the Livestock Diseases Act which includes burial in a lime pit or by incineration.*

The disposal of dead animals is now directly regulated by Alberta Agriculture and Forestry under the *Animal Health Act*. Concurrent oversight of dead animal disposal under AOPA would be inefficient and might lead to inconsistent approaches. Therefore, this condition will not be carried forward (See Operational Policy 2016-1: *Amending Municipal Permit Conditions, section 2.1*, and the *Memorandum of Understanding between the NRCB and Agriculture and Rural Development, Animal Health and Assurance Division (with Addendum) Relating to Dead Animal Disposal Complaints*, June 2013 and December 2014).

9. *Drainage or runoff from the site shall be controlled and contained within the parameters of the intensive livestock area including those structures used for the intensive operation.*

AOPA and its regulations supersede this condition. Several regulations are in place to minimize the risk of manure leaving the property. Therefore, this condition will be deleted and not carried forward. (See Operational Policy 2016-1: *Amending Municipal Permit Conditions, section 2.1)*

10. *The developer shall reimburse the Municipal District of Starland No.47 for all legal, engineering and other professional cost incurred by the Municipal District in the event of non-compliance by the developer with the terms of this agreement.*

This condition is no longer applicable given the NRCB's role as the regulator of CFOs. In the event that the operator is not compliant with the conditions of this permit, the NRCB's compliance division would be responsible to follow up with the operator. Therefore, this condition is no longer applicable.

11. *A letter of Intent and Undertaking shall be prepared by the Municipal District of Starland No.47 and shall be executed by the developer prior to the commencement of the improvements noted herein.*

This condition is impossible to enforce through the passage of time. Given that the permitted structures were completed, it is presumed that this condition was met. Therefore, this condition will not be carried forward.

APPENDIX C: Grandfathering determination

The CFO was originally permitted by Starland County on an unknown date in 1997 under development permit # 15/97. According to the applicant, this CFO has existed on this location since the 1970s. This development permit allowed the construction of an addition to their hog barn and operation of a 700 sow farrow to finish facility. This development permit is a deemed (i.e. grandfathered) approval under section 18.1(1)(b) of AOPA.

Under section 18.1(2)(b) of AOPA, a grandfathered CFO's deemed capacity (that is, the animal numbers allowed by its deemed permit) is the capacity authorized by the CFO's municipal permit. However, the NRCB interprets section 18.1(2) as allowing a grandfathered CFO's deemed capacity to be based on its physical capacity as of January 1, 2002, *if* that physical capacity was more than the capacity allowed by the CFO's municipal permit. (See NRCB Operational Policy 2016-5: *Determining Capacity for Grandfathered Confined Feeding Operations*). That is the case here.

Starland Colony claims that its CFO's physical capacity on January 1, 2002 was 585 sow farrow to finish, 85 milking cows (plus dries and replacements), 5600 layers (although applying to increase their permitted number in this application), 3200 layer pullets, 1300 ducks, and 200 geese, which is more than the above-stated capacity in its municipal permit. Therefore, to determine the CFO's deemed capacity, I must consider, among other things:

- What facilities existed at the site on January 1, 2002, including their dimensions, types of physical structures and other physical characteristics; and
- How each of those facilities was being used on January 1, 2002.

My consideration of facility usage includes the number and type of livestock in each facility and the purpose for the livestock's placement in each facility. I also consider how the facility was intended to be used through an entire livestock management period or cycle that included January 1, 2002. Evidence as to how the facilities were used in 2001 and previous years, and in the months and years following January 1, 2002, may be relevant to the two determinations listed above.

Hog facilities:

The conditions of Starland County's 1997 permit states that a maximum of 700 sows farrow to finish are permitted on the site. I have reviewed the aerial photography of the site and confirmed that the hog barns appear to be of the same size and footprint in 2002 as it is today. Given that their Starland County permit states 700 sows farrow to finish, it is reasonable to include that as a permitted animal capacity in their permit.

Dairy facilities:

Starland Colony claims that they have 85 milking cows, including dries and replacements. I reviewed aerial photography and have confirmed that the dairy barn appears to be of the same size and footprint in 2002 as it is today.

During a site inspection, I found that the milking barn (located at the south side of the main barn) currently contains 63 stalls. The applicant stated that two stalls were removed (after 2002) to accommodate cattle handling equipment in the barn. The barn layout and flooring in the area of the two stalls is consistent with the applicant's claim. The north portion of the milking barn houses calves. In addition to the freestalls, a 45' x 100' (13.7 m x 30.5 m) loose housing area (the applicant refers to it as a "calf barn", which appears to be a historical term) is used for

housing fresh milking cows, or those needing additional care. I encountered no evidence (other than the two removed stalls) that the number of stalls and loose housing are in any way different in 2002 than it is today.

Using Technical Guideline Agdex 096-81 "Calculator for Determining Livestock Capacity of Operations as They Existed on January 1, 2002", I have determined the following:

65 free stalls * 1.2 stalls/animal = 78 milking cows

4,500 square feet of loose housing area/150 square feet per cow=30 milking cows

Total of 108 milking cows

Therefore, I find that Starland Colony's claim of 85 milking cows (plus dries and replacements) is reasonable.

Layer pullets, ducks, and geese:

Starland Colony claims that they have 3200 layer pullets, 1300 ducks, and 200 geese.

The colony has a 40' x 150' duck/geese/chick barn, and a 30' x 40' old small layer barn. This gives them a combined square footage area of 7200 square feet. The colony advised that the use of these facilities varies between species based upon seasonality and demand.

I consulted Technical Guideline Agdex 096-81 "Calculator for Determining Livestock Capacity of Operations as They Existed on January 1, 2002. Space allocation exists for chicken pullets (0.5-0.7 square feet/bird), but no values exist for ducks nor geese.

Using the chicken pullet calculation, the 3200 layer pullets would require between 1600-2240 square feet. This would leave a remaining approximately 5280 square feet (the average of 4960-5600 square feet, depending on which density calculation used) for duck and geese.

If I use the space allocation for tom turkeys at 3.5 square feet/bird (the largest space requirements for any poultry species), the 5280 square feet would allow for a combined 1508 ducks/geese. Given that this calculation is very conservative (as tom turkeys require significantly more space), I find that the colony's claim of 1300 ducks and 200 geese as reasonable.

Based on these findings, the CFO is considered to have a deemed approval and a deemed capacity of 700 sow farrow to finish, 85 milking cows (plus dries and replacements), 3200 layer pullets, 1300 ducks, and 200 geese.