

Decision Summary RA23026

This document summarizes my reasons for issuing Registration RA23026 under the *Agricultural Operation Practices Act* (AOPA). Additional reasons are in Technical Document RA23026. All decision documents and the full application are available on the Natural Resources Conservation Board (NRCB) website at <u>www.nrcb.ca</u> 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 a registration. For additional information on NRCB permits please refer to <u>www.nrcb.ca</u>.

1. Background

On July 24, 2023, an NRCB inspector issued Compliance Directive CD 23-05, requiring Lone Pine Jerseys Ltd. to remedy unauthorized construction of an earthen liquid manure storage facility and a calf barn addition.

On November 2, 2023, Adrian Haeni on behalf of Lone Pine Jerseys Ltd. (Lone Pine) submitted a Part 1 application to the NRCB to expand an existing dairy CFO. Lone Pine also requested a grandfathering determination be made as part of this application.

On April 16, 2024, Lone Pine requested an extension to the 6-month deadline to submit a Part 2 application, and I granted a three-month extension. The Part 2 application was submitted on July 17, 2024. On August 13, 2024, I deemed the application complete.

The proposed expansion involves:

- Increasing livestock numbers from 110 to 120 milking cows (plus associated dries and replacements)
- Permitting the unauthorized calf barn 17 m x 22 m
- Permitting, expanding, and relining the unauthorized earthen manure storage (EMS) into a synthetically lined liquid manure storage (LMS) – 49 m x 48 m x 3.3 m deep (final dimensions)
- The applicant also requested variances under section 17 of AOPA of the prohibition against manure storage facilities and manure collection areas less than 100 meters away from water wells. That variance request is discussed in Appendix B and section 9, below.

a. Location

The existing CFO is located at NE 28-31-27 W4M, in Mountain View County, roughly 24 km east of the town of Didsbury, Alberta. The terrain is relatively flat, with a gentle slope to the south. The closest surface water body is a slough approximately 191 meters southwest from the existing EMS.

b. Existing permits

The site is not covered by any municipal development permits. As the CFO existed on January

1, 2002, the CFO is grandfathered with a deemed registration under section 18.1 of AOPA. This deemed registration allows for the construction and operation of a 110 milking cow dairy CFO. The determination of the CFO's deemed permit status and capacity under section 18.1 of AOPA is explained in Appendix E attached. The deemed facilities are listed in the appendix to the Registration RA23026.

2. Notices to affected parties

Under section 21 of AOPA, the NRCB notifies (or directs the applicant to notify) all parties that are "affected" by a registration application. Section 5 of AOPA's Part 2 Matters Regulation defines "affected parties" as:

- 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
- the municipality where the CFO is located or is to be located
- any other municipality whose boundary is within a ½ mile (805 m) from the CFO
- all persons who own or reside on land within the greater of ½ mile (805 m) or the minimum distance separation for the land on which the CFO is located

The land zoning on which the CFO is located would require a minimum distance separation of 290 metres. Therefore, the notification distance is $\frac{1}{2}$ mile. (The NRCB refers to this distance as the "notification distance".)

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.

The NRCB gave notice of the application by:

- posting it on the NRCB website,
- public advertisement in The Albertan newspaper in circulation in the community affected by the application on August 13, 2024, and
- sending 5 notification letters to people identified by Mountain View County as owning or residing on land within the notification distance.

The full application was made available for viewing at the NRCB Red Deer office during regular business hours.

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), Alberta Agriculture and Irrigation (AGI), and Alberta Transportation and Economic Corridors (TEC).

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

I received a response from AGI indicating the inspector responsible for the application.

I did not receive any other responses.

4. Alberta Land Stewardship Act (ALSA) regional plan

Section 22(9) of AOPA requires that an approval officer must ensure the application complies with any applicable ALSA regional plan.

There is no ALSA regional plan for the area where the CFO is to be located.

5. Municipal Development Plan (MDP) consistency

I have determined that the proposed expansion 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.)

6. AOPA requirements

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

- 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'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 and manure collection areas

With the terms and conditions summarized in part 11 and in Appendix D, the application meets all relevant AOPA requirements. The variances and exemption that address the AOPA requirements regarding water well setbacks are discussed in the following parts of this decision summary.

7. Responses from municipality and other directly affected parties

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." Mountain View County is an affected party (and directly affected) because the proposed expansion is located within its boundaries.

Ms. Peggy Grochmal, a development and permitting officer with Mountain View County, 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 the land use provisions of 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.

I did not receive any other responses.

8. Environmental risk of CFO facilities

As part of my review of this application, I assessed the risk to the environment posed by the CFO's existing manure storage facilities and manure collection areas. I used the NRCB's environmental risk screening tool (ERST) to assist in my assessment of risk to surface water and groundwater (see NRCB Operational Policy 2016-7: Approvals, part 9.17). The tool provides for a numeric scoring of risks, which can fall within 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 <u>www.nrcb.ca</u>.)

For the sake of efficiency, I first assessed the CFO's existing EMS using the ERST. This facility appears to be the CFO's highest risk facility because it lacks engineering reports and an AOPA approved liner. The EMS is also within 100 metres of a water well. The assessment suggested that this facility poses a high potential risk to groundwater. Because of this, I also assessed the calf barn and dairy barn as they are within 100 meters of the water well. Those two facilities were found to pose a low potential risk to groundwater and surface water.

In my view, taking the ERST results together with other information pertaining to the site and facilities, the risk posed by the existing EMS is addressed by the proposed synthetic lining of the EMS, as well as the water well monitoring condition explained in Appendix D. The results of the risk assessment are documented in Technical Document RA23026. 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 a further assessment of the risks posed by the other existing facilities, using the ERST, is not necessary.

New CFO facilities 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, or porous subsurface materials, and surface water systems an approval officer may require groundwater monitoring or an exemption for the facility. In this case a determination was made, and water well monitoring is required.

9. Variances

The applicant applied for a variance of the requirement for a water well to be at least 100 m away from a manure storage facility or manure collection area. I determined that the existing EMS and calf barn, which were constructed without a permit, are located within the required AOPA setback from an existing water well (well ID#229586). As explained in Appendix B, I am prepared to issue variances to the 100-meter water well setback due to the condition of the well and location upslope from the EMS and calf barn. A water well monitoring condition will also be required in the permit to address the results of a water well exemption screening that I completed (see Appendices C and D, below).

10. Exemption

I determined that the proposed relining and expansion of the EMS is located within the required AOPA setback from a water well. As explained in Appendix C, an exemption to the 100 m water well setback is warranted due to the condition of the well, location upslope from the facility, and the proposed relining of the expanded EMS. A water well monitoring condition will also be required in the permit to address the results of a water well exemption screening that I completed (see Appendix D, below).

11. Terms and conditions

Registration RA23026 specifies the cumulative permitted livestock capacity as 120 milking cows (plus associated dries and replacements) and permits the previously constructed calf barn, and the expansion and relining of the existing EMS.

Registration RA23026 contains terms that the NRCB generally includes in all AOPA registrations, including terms stating that the permit holder must follow AOPA requirements and must adhere to the project descriptions in their application and accompanying materials.

In addition to the terms described above, Registration RA23026 includes conditions that generally address construction deadline, monitoring, document submission and construction inspection. For an explanation of the reasons for these conditions, see Appendix D.

12. Conclusion

Registration RA23026 is issued for the reasons provided above, in the attached appendices, and in Technical Document RA23026.

October 29, 2024

(Original signed) Sarah Neff Approval Officer

Appendices:

- A. Consistency with the municipal development plan
- B. Variances
- C. Exemption from well setbacks
- D. Explanation of conditions in Registration RA23026
- E. Determination of deemed permit status and capacity

APPENDIX A: Consistency with the municipal development plan

Under section 22 of AOPA, an approval officer may only approve an application for a registration or amendment of a registration 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" for 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.)

Lone Pine's 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 No. 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", rather it helps to identify where the location of CFO's would be more suited within the County.

Lone Pine's 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...".

3.3.1 states that "all lands in the County are deemed to be agricultural use, unless otherwise designated for other uses". Lone Pine's land is designated as agricultural.

3.3.15 precludes new CFOs within 1.6 km (1 mile) of any identified growth centre or of an IDP with adjacent urban municipalities. The CFO is existing and therefore this provision does not apply. Nevertheless, Lone Pine's CFO is not within this 1.6 km setback for either a growth centre or an IDP.

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, Lone Pine's application meets AOPA requirements.

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: Variances

Because the EMS and calf barn have already been constructed (unauthorized), an exemption under section 7(2) of the Standards and Administration Regulation (SAR) is not available.

The EMS and calf barn are both located less than 100 m from a water well. I have confirmed that one water well (well ID#229586) is located approximately 70 m from the LMS and 28 m from the calf barn during a site visit and via aerial photography. This is in conflict with the section 7(1)(b) of the SAR.

Approval officers must not grant variances lightly or in the absence of substantive evidence they will produce equivalent levels of protection (see Decision 03-04, *AAA Cattle Ltd.* p 24). Below, I will consider whether variances are warranted to the water well.

Unauthorized EMS and calf barn:

1. Water Well Considerations

On October 3, 2024, the CFO operator requested a variance to the water well setback requirement on the grounds that the well has been in use for more than 40 years with regular maintenance and no exposure to livestock or manure contaminated runoff.

In this case, the calf barn and EMS have already been constructed (without a permit) but may cause a risk to the environment. I therefore need to either deny the application or alternatively consider if a variance is warranted under AOPA's section 17(1). It is my opinion that considering a variance is appropriate in this case.

I have used the same tools that I would normally use to determine if an exemption is warranted. I consider the water well exemption framework as useful for assessing the degree of protection for the water well in relation to a manure storage facility (MSF) or manure collection area (MCA). In this case, I presume that the risks of direct aquifer contamination from the MSF (EMS) and MCA (calf barn) are low if the MSF and MCA meet AOPA's technical requirements to control runoff and leakage. However, when determining whether a MSF/MCA that otherwise meets AOPA's technical requirements provides the same or greater protection and safety as provided for by the regulations, I also assess whether water wells themselves could act as conduits for aquifer contamination.

Water well ID 229586:

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 northeast of the EMS and approximately 28 m northwest of the calf barn is likely EPA water well ID 229586. This well is reported to have been installed in 1949 and the drilling report does not include information on where the perforated or screened zone exists below ground level across stratigraphy. This well is reported to be used for domestic and non-domestic purposes. The well log lacks information and is therefore unclear whether a protective layer or layers exist from ground surface to below ground level. The well log does not specify what type of seal the well has, or how far below ground level the seal was placed. The well appeared to be in good condition at the time of my site inspection and its casing was protected by a welded steel cage. The well is up-gradient of the CFO and MSF 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 well¹. This tool is useful in gauging the level of protection of groundwater because we use the tool to determine if a water well is going to be impacted when an exemption is considered.

In the case of water well ID 229586, the results of the water well exemption screening tool suggest that an exemption would be likely as seen in page 8 of the Technical Document RA23026.

One mechanism that may provide the same or greater protection and safety is if the approval officer implements a groundwater monitoring program of the water well in question. A condition has been added to Registration RA23026 requiring water well monitoring to water well ID 229586, due to the proximity of the well to the EMS and calf barn, as well as the lack of information regarding well construction. Therefore, in my opinion, a variance of the 100 m setback requirement for the EMS and calf barn is appropriate for this water well (see Appendix D).

Based on the above, I am prepared to grant a variance to the 100 m water well setback requirement for the existing EMS and calf barn.

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

APPENDIX C: Exemption from well setbacks

1. Water Well Considerations

The proposed expanded and relined LMS is to be located less than 100 m from a water well. I have confirmed that one water well will be located approximately 70 m from it during a site visit and via aerial photography. This is in conflict with the section 7(1)(b) of the Standards and Administration Regulation 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 and, if required, a groundwater monitoring program is implemented.

The potential risks of direct aquifer contamination from the MSF are presumed to be low if the applicant's proposed MSF 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. Whether the well is being properly maintained
- b. Whether the well is up- or down-gradient from the MSF and whether this gradient is a reasonable indication of the direction of surface and groundwater flow between the two structures
- c. The proposed relining of the LMS

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

Water well ID 229586:

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 northeast of the proposed LMS expansion and relining is likely EPA water well ID 229586. This well is reported to have been installed in 1949 and the drilling report does not include information on where the perforated or screened zone exists below ground level across stratigraphy. This well is reported to be used for domestic and non-domestic purposes. The well log lacks information and is therefore unclear whether a protective layer or layers exist from ground surface to below ground level. The well log does not specify what type of seal the well has, or how far below ground level the seal was placed. The well appeared to be in good condition at the time of my site inspection and its casing was protected by a welded steel cage. The well is up-gradient of the CFO and MSF.

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.²

² A complete description of this tool is available under CFO/Groundwater and Surface Water Protection on the NRCB website at <u>www.nrcb.ca</u>.

In this case, the results of the water well exemption screening tool suggest that an exemption is likely as seen in Technical Document RA23026.

Despite the above, I am of the opinion that a water well monitoring condition should be included in the registration.

Under the regulation, an approval officer may require a groundwater monitoring program of the water well in question. In my view, a monitoring program is required due to the proximity of the well to the proposed LMS expansion and the lack of information regarding well construction. Therefore, a condition has been added to Registration RA23026 requiring annual sampling of water well ID 229586.

Based on the above, I am prepared to grant an exemption to the 100 m water well setback requirement for the proposed expanded and relined LMS.

APPENDIX D: Explanation of conditions in Registration RA23026

Registration RA23026 includes several conditions, discussed below:

a. Water well monitoring and protection

As noted in Decision Summary RA23026 and Technical Document RA23026, the Water Well Exemption Screening Tool scores indicated an exemption is likely. However, due to the proximity of the water well to the existing EMS and calf barn, as well as the limited available information on the well construction, a condition will be included in Registration RA23026 requiring the permit holder to sample and test raw groundwater from water well ID 229586, according to water well monitoring requirements prescribed by the NRCB in writing ("Sampling for Water Well Monitoring" Fact Sheet). The NRCB may, based on the monitoring results and at its discretion, revise those requirements from time to time, in writing.

b. 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."

Information from the engineering report submitted with the application reported the water table to be at approximately 4.4 mbgs (meters below ground surface). The application proposes the final dimensions of the expanded and relined LMS to be 3.3 m total depth.

Based on this information, the expanded and relined LMS meets 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 Lone Pine to cease construction and notify the NRCB immediately if the water table is encountered during construction.

c. Construction deadline

Lone Pine proposes to complete expansion and relining of the existing EMS by July 2026. Due to the unauthorized construction of, and high risk to groundwater posed by the existing EMS, a more restricted deadline is appropriate. Therefore, the deadline of November 30, 2025, is included as a condition in Registration RA23026.

d. 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, Registration RA23026 includes conditions requiring:

- a. A written construction completion report for the expanded and synthetically lined LMS. The report must be stamped and signed by a "professional engineer," as defined in the Standards and Administration Regulation, and must include:
 - the final dimensions, side slopes, and depth below grade of the LMS,
 - the location in which the LMS was constructed,
 - confirmation that the bottom of the liner was constructed no less than 1 metre above the water table,

- confirmation of the water table level at the time of liner installation; and
- confirmation that the liner installed was a 60 mil HDPE enviro liner, and that the liner was installed in accordance with the liner manufacturer's requirements, including preparation of the bed on which the synthetic liner is placed and proper sealing at all seams.

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. Registration RA23026 includes a condition stating that Lone Pine shall not place manure in the manure storage or collection portions of the expanded and synthetically lined LMS until NRCB personnel have inspected the LMS and confirmed in writing that it meets the registration requirements.

APPENDIX E: Determination of deemed permit status and capacity

Lone Pine claims that its CFO is grandfathered (that is, it has a "deemed" permit) under section 18.1 of AOPA. I am treating that as a request for a determination of deemed permit status. A grandfathering determination is necessary in this case because it is necessary to determine which facilities are grandfathered and, therefore, exempt from having to meet AOPA regulations under section 22(2.2) of AOPA. See NRCB Operational Policy 2023-1: Grandfathering (Deemed Permit), part 3.1.

Under section 11(1) of the Administrative Procedures Regulation under AOPA, because I am cross appointed as an NRCB inspector, I conducted an investigation into the deemed permit status of the CFO. I also determined the capacity of the CFO that was in place on January 1, 2002.

In this case, the operator bears the onus of providing sufficient evidence to support their claim (Operational Policy 2023-1: Grandfathering (Deemed Permit), part 2.3).

The CFO is not covered by a municipal development permit (or permit issued under the *Public Health Act*) issued before AOPA came into effect on January 1, 2002. However, under section 18.1(1)(a) of AOPA, the CFO may still hold a deemed permit if:

- a. the CFO "existed" on January 1, 2002; and,
- b. the CFO facilities had capacity to confine livestock at or greater than the permit threshold sizes under AOPA. (See Operational Policy 2023-1: Grandfathering (Deemed Permit), part 2.3).

To determine whether the CFO meets these two criteria, the NRCB may need to consider, among other things:

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

Notice:

As required under section 11(2) of the Administrative Procedures Regulation, I provided notice to those parties who would be entitled to notice if this were an application for a new registration. I determined the notification distance to be $\frac{1}{2}$ mile on the basis of the current physical capacity of the operation.

In this case, the NRCB provided notice of the deemed permit determination as part of the notice for the proposed expansion to 120 milking cows (plus associated dries and replacements) and expansion and relining of the existing EMS application.

Evidence:

Due to a lack of aerial photography available for the CFO site prior to and including 2002, I conducted further research to confirm the CFO existed prior to 2002. A news article was published in a 2022 edition of "BC Holstein News" featuring Lone Pine Jerseys Ltd. and stated the Haeni family had bought the dairy in 1993 (see pg.18 of TD RA23026). The article related that they started out with a milking herd of 55 jerseys and increased their herd to 120 head "in the ensuing years." There is no indication of the milking herd size on or around January 1, 2002.

During my site visits, I assessed the existing facilities and their dimensions. My assessment of the facilities matched aerial photography from 2005-2011. The historical aerial photos indicate the unauthorized construction of the EMS and calf barn took place somewhere between the years of 2005-2011. I note that in my conversations with the operator, he stated the main milking barn existed prior to 2002 and has not been expanded since.

I found that the main milking barn consists of 79 free stalls, as well as two separate straw pack areas. The operator explained they often had fresh cows or new heifers within the straw pack areas.

In response to notice of the grandfathering determination, I did not receive any submissions relating to the grandfathering process.

Findings

Under section 18.1(2)(a) of AOPA, if a CFO existed on January 1, 2002, the CFO's deemed capacity is its physical capacity to confine livestock on January 1, 2002.

I consulted the NRCB's Technical Guideline Agdex 096-81 "Calculator for Determining Livestock Capacity of Operations as They Existed on January 1, 2002". For dairy operations with free stall barns, the following calculation is provided:

Calculated animal # = 1.2 animals per stall, multiplied by the # of stalls

For Lone Pine's dairy: (1.2 animals per stall) * (79 stalls) = 95 milking cows

The same technical guideline provides a calculation for loose housing for dairy cows. The calculator provides 150 ft²/animal.

The combined square footage of the two straw pack areas is 2,918 ft².

Calculated animal # (loose housing) = $(2,918 \text{ ft}^2) / (150 \text{ ft}^2/\text{animal}) = 19 \text{ milking cows}$

In using the calculator, I found that the main milking barn, consisting of the free stalls and two straw pack areas, had the capacity for 114 milking cows. This is consistent with the operator's claim of 110 milking cows.

In addition to the main milking barn, I also determined the following structures to be included in the grandfathered CFO:

- Weaned calf barn (attached to dairy barn)
- Cattle shed 1
- Cattle shed 2
- Cattle shed 3 (dry cows)
- Heifer shed
- Close up dry cow shed
- Fresh cow pens (consists of 4 pens)
- Loose housing (attached to dairy barn)

Based on these findings, before Registration RA23026 is issued, the CFO is considered to have a deemed registration and a deemed capacity of 110 milking cows (plus associated dries and replacements).

Validity today:

Finally, Operational Policy 2023-1: Grandfathering (Deemed Permit), part 9.0 suggests that field services staff assess the validity of a deemed permit today.

Under Operational Policy 2023-1: Grandfathering (Deemed Permit), part 9.1, I considered whether the CFO has been abandoned since January 1, 2002. I considered factors relevant to abandonment, as identified in Operational Policy 2016-3: Permit Cancellations under AOPA Section 29. As noted in several site visits and discussions with the operator, the CFO facilities have been in continual use since 2002. I therefore conclude this CFO has not been abandoned.