

Total permitted animal capacity from all permits for this site:
700 milking cows (plus associated dry cows and replacements)

In consideration of Decision Summary RA20019, Approval RA20019 is issued to:

Name: Brando Holsteins Inc. and Wim and Sylvia Schakel
(the “co-permit holders”)
Address: RR2 Lacombe AB T4L 2N2
Contact person: Brad Schakel

Permitted construction (based on the submitted site plan):

- Heifer barn (180.7 m x 34.6 m)
- Manure storage pad (15 m x 15 m)
- Earthen liquid manure storage expansion (final dimensions 125 m x 55 m x 8 m)

The co-permit holders shall comply with the requirements of the *Agricultural Operation Practices Act* (AOPA) and the regulations passed pursuant to that act.

The co-permit holders shall adhere to the descriptions contained in Applications RA20019, RA15052, RA11024, and RA06010 along with those in Lacombe County issued development permit 87-96, together with the site plans, building plans, engineering reports and other attached documents, unless otherwise noted in the following conditions.

The co-permit holders shall contact the NRCB at least 10 working days in advance of the desired inspection date to schedule the inspection in conditions three, six and nine, below.

The co-permit holders is responsible for all costs associated with monitoring, sampling, testing, recording and reporting requirements.

Construction conditions

EMS Expansion

1. Construction completion deadline
The co-permit holders shall complete the construction of the EMS expansion prior to November 30, 2021. Upon written request, this deadline may be extended by the NRCB in writing.
2. Construction report requirement
The co-permit holders shall provide the NRCB with a written construction completion report for the EMS. The report must be stamped by a professional engineer, and certify that the manure storage portion of the expanded EMS:
 - is constructed in accordance with Union Street Geotechnical Ltd.’s Geotechnical Investigation report #902 (May 6, 2020)
 - dimensions including horizontal and vertical dimensions, elevations above and below grade, berm heights, and side slopes

- specifications of and thickness (horizontal and vertical) of the compacted clay till used to replace the shallow sand layer and any other sand lenses or layers, if observed
This document must be provided to the NRCB prior to the inspection referenced in condition three, or by a later date stated in writing by the NRCB.

3. Post construction inspection

The co-permit holders shall not place manure in the expanded portion of the EMS until NRCB personnel have inspected it and stated in writing that it has been constructed in accordance with the terms and conditions of this approval.

Heifer barn

4. Concrete

The concrete used to construct the manure collection and storage liner in the heifer barn must be sulphate resistant and have a minimum 28-day compressive strength of 25 MPa. The co-permit holders shall provide proof, prepared by a qualified third party, to the NRCB confirming the specifications of the concrete used in the construction of the barn's liner. This document must be provided to the NRCB prior to the inspection referenced in condition six, or by a later date stated in writing by the NRCB.

5. Construction completion deadline

The co-permit holders shall complete construction of the heifer barn prior to November 30, 2022. Upon request, this deadline may be extended by the NRCB in writing.

6. Post construction inspection

The co-permit holders shall not allow livestock or manure in the heifer barn until it has been inspected by NRCB personnel, and confirmed by them in writing, to have been constructed in accordance with the terms and conditions of this approval.

Manure storage pad

7. Concrete

The concrete used to construct the manure storage liner in the manure storage pad must be sulphate resistant and have a minimum 28-day compressive strength of 25 MPa. The co-permit holders shall provide proof, prepared by a qualified third party, to the NRCB confirming the specifications of the concrete used in the construction of the pad's liner. This document must be provided to the NRCB prior to the inspection referenced in condition nine, or by a later date stated in writing by the NRCB.

8. Construction completion deadline

The co-permit holders shall complete construction of the manure storage pad prior to November 30, 2022. Upon request, this deadline may be extended by the NRCB in writing.

9. Post construction inspection

The co-permit holders shall not place manure on the manure storage pad until it has been inspected by NRCB personnel, and confirmed by them in writing, to have been constructed in accordance with the terms and conditions of this approval.

Operating conditions

10. (formerly #4 from Lacombe County issued development permit 87-96)
The co-permit holders shall ensure that any manure contaminated runoff is kept on the property and not allowed to enter the intermittent tributary to Jones Creek.
11. (formerly #6a from Approval RA06010)
The NRCB is to be notified immediately if there is an overflow or leak from any of the manure storages.
12. (formerly #8a from Approval RA06010)
Drinking water quality tests for chlorides and nitrates must be conducted annually on the water well(s) within 100 metres of the confined feeding operation with the results submitted annually to the NRCB by October 31, beginning in 2006.
13. (formerly #10a from Approval RA06010)
Manure must not be spread on frozen or snow covered land.
14. (formerly #4 from Authorization RA15052)
Unless otherwise directed by the NRCB in writing, the co-permit holders shall maintain and make available to the NRCB, upon request, an ongoing quarterly record of the number of milking dairy cows at Brando Holsteins, to demonstrate that the number of milking cows remains at or below 700 for the CFO.

This approval becomes effective immediately; its conditions will remain in effect unless amended in writing by the NRCB.

The deemed registration, including Lacombe County issued development permit 87-96, and NRCB issued Approval RA06010 and Authorizations RA11024 and RA15052 are hereby cancelled and are no longer in effect, unless Approval RA20019 is held invalid, in which case the previous permits will remain in effect.

October 30, 2020

(Original Signed)
Jeff Froese
Approval Officer

Approval RA20019 – Appendix

Existing permitted facilities

Facility	Dimensions (m)	Permit
Pole shed	12 x 19	Deemed permit
Portions of livestock barn (part of dairy barn complex)	36.5 x 35 and 35 x 40	
Earthen liquid manure storage	62 x 77	Lacombe county issued 87/96
Portion of livestock barn (part of dairy barn complex)	60 x 33.8	Approval RA06010
Calf barn	25.6 x 21.3	Authorization RA11024
Heifer barn (part of dairy barn complex)	60 x 39.5	Authorization RA15052

Construction conditions brought forward from:

Lacombe County issued development permit 87-96

- 1A. The owner/operator of this dairy is to ensure that the manure storage facilities are designed and constructed to avoid contamination of groundwater, prevent contaminated surface water from leaving the property... (The remainder of this condition is operational and was not carried forward. See the discussion in Appendix D of Decision Summary RA20019.)
2. Prior to construction of the manure storage, soil tests are to be carried out at the storage site to the satisfaction of the County. The results of these tests will be used to determine the requirements for the design and construction of the manure storage.
3. The manure storage must be capable of containing at least eight (8) months accumulation of liquid manure produced by the operation. For a 150 cow dairy, a manure storage capacity of not less than 720,000 gallons is recommended in the Code of Practice for the Safe and Economic Handling of Animal Manures.

Approval RA06010

- 1a. If the water table is encountered and causes or creates construction problems or delays during construction of the new barn pits, construction must cease in the problem construction area and the NRCB must be notified immediately.
- 1b. The concrete used to construct the scrape alleys in the barn must have a water to cement ratio of 0.50. The concrete used to construct the under barn pit must have a water to cement ratio of 0.45.
- 1c. A completion report confirming the barn floor liner material and construction procedures, prepared by a qualified third party, must be provided to the NRCB prior to manure or animals entering the new barn.



- 2a. A leakage detection system plan for the existing EMS must be prepared by a qualified professional and be submitted to the NRCB before any monitoring wells are installed. The plan must be approved by the NRCB in writing before it is implemented. The plan must provide for a minimum of three monitoring wells around the EMS, with at least one upgradient and at least two downgradient, intersecting the water table.
- 2b. Leak detection wells must be installed prior to animals or manure being allowed in the new barn.
- 4a. Construction must be completed by December 1, 2008.
- 5a. The manure storage portion of the barn must be inspected by NRCB personnel prior to animals or manure being placed in the new barn.
- 5b. The applicant must provide the Approval Officer a minimum of 10 working days notice prior to the applicant's desired completion inspection.

Authorization RA11024

1. The concrete used to construct the manure storage and collection system in the barn must have a minimum 28-day strength of 25 MPa. A copy of the concrete supplier's invoice must be provided to the NRCB, to confirm the concrete specifications, prior to animals and manure entering the new barn.
2. Construction of the manure collection and storage portions of the new calf barn must be completed prior to August 31, 2013; unless otherwise agreed upon, in writing, by the NRCB.
3. The manure storage portion of the calf barn must be inspected by NRCB personnel prior to animals or manure being placed in the new barn.

Authorization RA15052

1. The permit holder shall provide a copy of the concrete supplier's invoice(s) or other proof to the NRCB to confirm the specifications of the concrete used in the construction of both the floor of the barn and the liquid manure storage pits. These documents must be provided to the NRCB prior to the inspection referenced in condition 2 below, or by a later date stated by the NRCB in writing. The strength of concrete used for construction of the manure collection and storage portions of the hospital barn must be as follows:
 - 1a. Concrete used in construction for the floor of the hospital barn must be sulfate resistant and have a minimum 28-day strength of 25 MPa.
 - 1b. Concrete used in construction for the liquid manure storage pits under the hospital barn must be sulfate resistant and have a minimum 28-day strength of 32 MPa and a maximum water to cement ratio of 0.45.



2. The permit holder shall complete construction of the manure collection and storage portions of the hospital barn prior to May 31, 2017. Upon request, this deadline may be extended by the NRCB in writing.
3. The permit holder shall immediately cease construction of the hospital barn and contact the NRCB if the water table is observed to be 1 m or less from the bottom of the manure storage pits under the hospital barn.
4. The permit holder shall not allow livestock in or manure in the manure collection and storage portions of the barn until it has been inspected by NRCB personnel and determined by them, in writing, to have been constructed in accordance with the terms and conditions of this permit.