



Total permitted animal capacity from all permits for this site:

700 milking cows (plus associated dry cows and replacements)
1,250 beef finishers

In consideration of Decision Summary RA20035, Approval RA20035 is issued to:

Name: Bertens Holsteins Ltd., (the "permit holder")
Address: RR4 Site 9 Box 19 Olds AB T4H 1T8
Contact person: Ad Bertens

Permitted construction (from Application RA20035):

- Synthetic lined liquid manure storage facility (125 m x 125 m x 4.5 m deep and walls sloped at 4:1)
- Sand reclamation facility (72 m x 41 m)

Permitted construction (from Approval RA15006 as amended by Application RA20035):

- Loose housing barn (176 m x 24 m)
- Free stall barn (176 m x 48 m), includes attached transfer alley
- Milking barn (109 m x 48 m)
- Solid manure storage pad (18.3 m x 18.3 m)

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

The permit holder shall adhere to the descriptions contained in Applications RA20035, RA15006 an RA06013, together with the site plans, building plans, engineering report and other attached documents, unless otherwise noted in the following conditions.

The permit holder shall contact the NRCB at least 10 working days in advance of the desired inspection date to schedule the inspection in conditions three, seven, eleven, fifteen, eighteen, and twenty two (below).

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

Construction conditions

Loose housing barn

1. Concrete

The concrete used to construct the manure collection and storage liner in the loose housing barn must be sulphate resistant and have a minimum 56-day compressive strength of 30 MPa. The permit holder 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 three, or by a later date stated in writing by the NRCB.

2. Construction completion deadline

The permit holder shall complete construction of the loose housing barn prior to November 1, 2024. Upon request, this deadline may be extended by the NRCB in writing.

3. Post construction inspection

The permit holder shall not allow livestock or manure in the loose housing 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.

Free stall barn (including attached transfer alley)

4. Construction above water table

The permit holder shall immediately cease construction of the free stall barn, and contact the NRCB immediately, if the water table is observed to be one metre or less from the bottom of the manure storage and collection liner of this facility during construction.

5. Concrete

The concrete used to construct the manure collection and storage liner in the free stall barn must be sulphate resistant and have a minimum 56-day compressive strength of 30 MPa. The permit holder 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. In addition to this, the third party must also provide proof that the transfer alley has adequate crack control (see Technical Guideline 096-93, Category C). This document must be provided to the NRCB prior to the inspection referenced in condition seven, or by a later date stated in writing by the NRCB.

6. Construction completion deadline

The permit holder shall complete construction of the free stall barn prior to November 1, 2024. Upon request, this deadline may be extended by the NRCB in writing.

7. Post construction inspection

The permit holder shall not allow livestock or manure in the free stall 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.

Milking barn

8. Construction above water table

The permit holder shall immediately cease construction of the milking barn, and contact the NRCB immediately, if the water table is observed to be one metre or less from the bottom of the manure storage and collection liner during construction.



9. Concrete

- a. The concrete used to construct the manure collection liner (scrape alleys) in the milking barn must be sulphate resistant and have a minimum 56-day compressive strength of 30 MPa. The permit holder shall provide proof, prepared by a qualified third party, to the NRCB confirming the specifications of the concrete used in the construction of the scrape alley's liner. This document must be provided to the NRCB prior to the inspection referenced in condition eleven, or by a later date stated in writing by the NRCB.
- b. The concrete used to construct the manure storage liner (pit) in the milking barn must be sulphate resistant and have a minimum 56-day compressive strength of 32 MPa. The permit holder shall provide proof, prepared by a qualified third party, to the NRCB confirming the specifications of the concrete used in the construction of the pit's liner. This document must provide proof of a bentonite strip sealant (or an equivalent product) used in concrete joints or concrete penetrations and be provided to the NRCB prior to the inspection referenced in condition eleven, or by a later date stated in writing by the NRCB.

10. Construction completion deadline

The permit holder shall complete construction of the milking barn prior to November 1, 2024. Upon request, this deadline may be extended by the NRCB in writing.

11. Post construction inspection

The permit holder shall not allow livestock or manure in the milking 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.

Sand reclamation facility

12. Construction above water table

The permit holder shall immediately cease construction of the sand reclamation facility, and contact the NRCB immediately, if the water table is observed to be one metre or less from the bottom of the manure storage and collection liner during construction.

13. Concrete

The concrete used to construct the manure collection and storage liner in the sand reclamation facility must be sulphate resistant and have a minimum 56-day compressive strength of 32 MPa. The permit holder shall provide proof, prepared by a qualified third party, to the NRCB confirming the specifications of the concrete used in the construction of the facility's liner. This document must provide proof of rubber sealants (or an equivalent product) used in concrete joints or concrete penetrations and be provided to the NRCB prior to the inspection referenced in condition fifteen, or by a later date stated in writing by the NRCB.

14. Construction completion deadline

The permit holder shall complete construction of the sand reclamation facility prior to November 1, 2024. Upon request, this deadline may be extended by the NRCB in writing.

15. Post construction inspection

The permit holder shall not allow manure in the sand reclamation facility 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.

Solid manure storage pad

16. Concrete

The concrete used to construct the manure storage liner in the solid manure storage pad must be sulphate resistant and have a minimum 56-day compressive strength of 30 MPa. The permit holder 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 eighteen, or by a later date stated in writing by the NRCB.

17. Construction completion deadline

The permit holder shall complete construction of the pad prior to November 1, 2024. Upon request, this deadline may be extended by the NRCB in writing.

18. Post construction inspection

The permit holder shall not place manure on the 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.

Synthetically lined liquid manure storage

19. Construction above water table

The permit holder shall immediately cease construction of the synthetically lined liquid manure storage, and contact the NRCB immediately, if the water table is observed to be one metre or less from the bottom elevation of the synthetically lined liquid manure storage during its construction.

20. Liner requirement

The permit holder shall provide the NRCB with a written construction completion report for the synthetically lined liquid manure storage. The report shall be stamped and signed by a professional engineer, as defined in the Standards and Administration Regulation, and must confirm that this facility:

- is constructed in the location as proposed on page six of Technical Document RA20035,



- inlet pipe is located in the lower quarter of the structure
- has the correct horizontal and vertical dimensions as stated in Technical Document RA20035, including elevations above and below grade, berm heights, and side slopes
- was constructed in accordance with the specifications (with except for the new dimensions and location in Application RA20035) stated in Envirowest Engineering Inc.'s May 12, 2015 Site Assessment and Design, Manure Storage Lagoon report including:
 - i. that the sub-base for the liner was properly prepared,
 - ii. a 60 mil HDPE liner was installed,
 - iii. that the liner was installed in accordance with the liner manufacturer's requirements
 - iv. results of seam test results, including repair details (if any) and quality testing results for the liner material
- that any materials placed on top of the liner such as GEOWEB 3D Concrete Channels, inlet splash pad, access ramps, and agitation pads were installed in a manner that will not compromise the synthetic liner

This document must be provided to the NRCB prior to the inspection referenced in condition twenty two, or by a later date stated in writing by the NRCB.

21. Construction completion deadline

The permit holder shall complete construction of the synthetically lined liquid manure storage prior to November 1, 2024. Upon request, this deadline may be extended by the NRCB in writing.

22. Post construction inspection

The permit holder shall not allow manure in the new synthetically lined liquid manure storage 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 approval.

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

Approval RA15006 is hereby cancelled and is no longer in effect, unless Approval RA20035 is held invalid, in which case the Approval RA15006 will remain in effect.

September 17, 2020

(original signed)
Jeff Froese
Approval Officer

Approval RA20035 – Appendix

Existing constructed facilities from Approvals RA15006, RA06013A and the deemed permit

Feedlot (220 m x 30 m), including three columns of pens (69 m x 30 m, 58 m x 30 m and 58 m x 30 m) and two solid manure storage pads (15 m x 16.5 m and 15 m x 21 m)

Construction conditions (brought forward from Approval RA15006)

Concrete solid manure storage pad (formerly condition 26)

- The permit holders shall complete construction of the manure collection and storage portions of the concrete solid manure storage pad prior to December 30, 2017. Upon request, this deadline may be extended by the NRCB in writing.
- The permit holders shall not place manure on the concrete solid manure storage pad until the NRCB has inspected the pad.

Livestock pens (formerly condition 27)

- The permit holders shall complete construction of the livestock pens prior to December 30, 2017. Upon request, this deadline may be extended by the NRCB in writing.
- The permit holders shall not place manure on the concrete solid manure storage pad until the NRCB has inspected the pad.