

Application for Amendment

Application under the *Agricultural Operation Practices Act* to amend a permit for a confined feeding operation, manure collection area and/or manure storage facility(ies). ("Permit" means an NRCB-issued or grandfathered approval, registration, or authorization, including a grandfathered municipal development permit.)

NRCB USE ONLY	Application number	NRCB APPLICATION
<input checked="" type="checkbox"/> Approval <input type="checkbox"/> Registration <input type="checkbox"/> Authorization	<u>RA10004B</u>	MAY 28 2021

CONTACT INFORMATION **RECEIVED**

Applicant Information		
Name: <u>Roelof Meilink</u>	Corporate Name (if applicable) <u>Meilink Dairies LTD.</u>	
Address: (Street/P.O. Box) <u>28071 Twp Rd 380</u>		
City/Town: <u>Red Deer County</u>	Province: <u>AB</u>	Postal Code: <u>T4E 2E9</u>
Agent Information (if applicable)		
Name:	Corporate Name (if applicable)	
Address: (Street/P.O. Box)		
City/Town:	Province:	Postal Code:


LOCATION OF DEVELOPMENT		
Which permit do you wish to amend? (List permit number and issuing agency.)	<u>Approval 10004.</u>	
Legal Land Description(s)	<u>SE 27-36-28 W 4.</u> (Qtr-Sec-Twp-Rg-W Mer)	

APPLICATION DISCLOSURE

This information is collected under the authority of the *Agricultural Operation Practices Act (AOPA)*, and is subject to the provisions of the *Freedom of Information and Protection of Privacy Act*. This information is public unless the NRCB grants a written request that certain sections remain private.

Any construction prior to obtaining an NRCB permit is an offence and is subject to enforcement action, including prosecution.

I, the applicant, or applicant's agent, have read and understand the statements herein and acknowledge that the information provided in this application is true to the best of my knowledge.

<u>May 28 / 2021</u> Date of signing <u>Meilink Dairies LTD</u> Corporate name (if applicable)	 Signature <u>Roelof Meilink</u> Print name
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Application for Amendment – contd.

AMENDMENT INFORMATION REQUIREMENTS

Instructions:

For each part of your permit that you would like amended, please detail what change you would like made and why, and how your proposed change will meet the AOPA requirements. You may attach additional pages to this form to provide this information.

Please note that an approval officer may require a page (or pages) of the Part 2 application forms to be completed as part of this application for amendment, depending on what changes are proposed.

We like to change The permit for the lagoons from a two cell to a one cell with final dimensions of 80 x 80 x 4.8 meters no changes to total depth or approved liner.

AO Comments:

The application seeks to modify the number of cells and dimensions of the permitted and already constructed earthen liquid manure storage (EMS). The EMS was constructed as a one cell (instead of the permitted two cells EMS) and with different dimensions from the originally permitted dimensions (modifying the EMS from a two-cell 73 m x 55 m x 4.8 m deep each cell, to a one-cell measuring 80 m x 80 m x 4.8 deep).

The EMS was constructed in the same location, and using the same compacted clay liner that was proposed in the original application, and permitted in the approval. The proposal will have a minimal change to its environmental risk, if any. Livestock number, and therefore, annual manure production will not change

Part 2 – Technical Requirements

Application under the *Agricultural Operation Practices Act* for a confined feeding operation, manure collection area and/or manure storage facility(ies)

NRCB USE ONLY	
LIQUID MANURE STORAGE VOLUME CALCULATOR (if applicable)	
Facility 1	
Name / description One cell EMS	Capacity 17,906 m ³
Facility 2	
Name / description	Capacity
Facility 3	
Name / description	Capacity
Facility 4	
Name / description	Capacity
TOTAL CAPACITY	
	17,906 m ³
REQUIRED 9 MONTH STORAGE CAPACITY	
	10,800 m ³
MEETS THE REQUIREMENTS FOR A MINIMUM OF 9 MONTHS STORAGE	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO



May 7, 2021

NRCB
Provincial Building
303, 4920 51st Street
Red Deer, Alberta
T4N 6K8

Attn: Francisco Echegaray, Approval Officer
francisco.echegaray@nrcb.ca

**Re: Meilink Dairies Ltd. – Inspection and Amendment
Approval No. RA10004
SE 27-036-28 W4M
Red Deer County, Alberta**

Dear Francisco,

In accordance with Approval No. RA10004, Envirowest Engineering (Envirowest) undertook inspection the earthen manure storage (EMS) located at SE 27-036-28 W4M. The inspection occurred on March 22, 2021 and April 27, 2021.

The EMS was found to be 80 meters by 80 meters. The depth of the EMS could not be measured at the time of the inspection due to manure being present in the lagoon. Confirmation from the operator and construction contractor indicated that the overall depth was approximately 4.8 meters below top of bank. The dyke walls are from 0.5 to 1.0 meters above grade with an exterior slope at a minimum 4:1. The inside wall slope is approximately 3:1. The depth to groundwater was determined to be more than 1 meter below the depth of the liner prior to construction.

The dimensions differ from the permitted construction dimensions. The current capacity is 17,906 cubic meters, the required capacity as calculated by Envirowest (2010) is 17,540 cubic meters. The amendment of the lagoon from a two cell storage system to a one stage storage system at the measured dimensions provides sufficient storage capacity.

Discussion with the operator determined that the inlet pipe was sealed upon installation by the contractor. The clay material surrounding the pipe was also recompacted to at least 1 meter from the lagoon wall to the same specifications as outlined in the design report.

The lagoon was constructed in the same area as indicated in the submitted site plan. A compacted clay liner was installed in the side walls and floor of the EMS. The liner depth was verified to be at least 1.0 meter thick and up to 3.0 meters. The liner material used was that tested as part of the original site assessment.

Compaction testing of the liner was undertaken for the EMS at four locations. Results of the testing are detailed below.

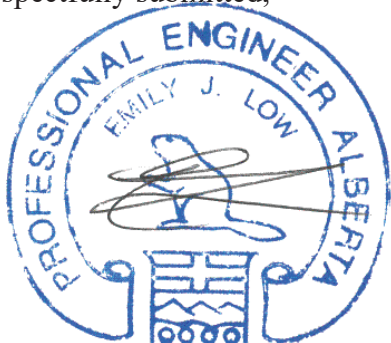
Test Location	Maximum Dry Density (kg/m ³)	Tested Density (kg/m ³)	% Compaction
North Wall	1883	1910	101%
West Wall	1883	2276	121%
South Wall	1883	2102	112%
East Wall	1883	2079	110%

Based on the information collected it is considered that the installed liner meets the applicable requirements as outlined in the Envirowest Engineering report.

Envirowest Engineering is pleased to submit the inspection report to the Natural Resources Conservation Board (NRCB) and Roelof Meilink of Meilink Dairies Ltd. The information and conclusions contained in this report are for their sole use and such parties as may be normally involved in the approval process for such a facility. No other party is to rely upon the information contained within the report without the express written authorization of Envirowest Engineering.

We trust that this report meets your present needs. Please feel free to contact the undersigned, should you have any questions or require additional information.

Respectfully submitted,




2021-05-07

Emily J. Low, P.Eng.
Envirowest Engineering

2206165 Alberta Ltd. o/a Envirowest Engineering
Association of Professional Engineers and Geoscientists of Alberta
Permit to Practice No. P14810

Cc'd: Roelof Meilink, [REDACTED]

PERMIT TO PRACTICE 2206165 ALBERTA LTD.	
RM SIGNATURE:	
RM APEGA ID #:	110373
DATE:	May 7, 2021
PERMIT NUMBER: P014810 The Association of Professional Engineers and Geoscientists of Alberta (APEGA)	



P.O. Box 4248
Ponoka, AB.
T4J 1R6
Telephone: 403-783-8229
Facsimile: 403-783-5222

March 25, 2021

NRCB
Provincial Building
303, 4920 51st Street
Red Deer, Alberta
T4N 6K8

Attn: Francisco Echegaray, Approval Officer
francisco.echegaray@nrcb.ca

Re: Meilink Dairies Ltd. – Inspection and Amendment
Approval No. RA10004
SE 27-036-28 W4M
Red Deer County, Alberta

Dear Francisco,

In accordance with Approval No. RA20029, Envirowest Engineering (Envirowest) undertook inspection the earthen manure storage (EMS) located at SE 27-036-28 W4M. The inspection occurred on March 22, 2021.

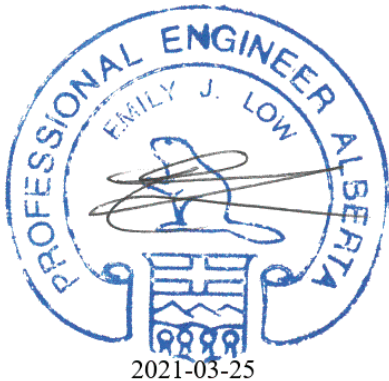
The EMS was found to be 80 meters by 80 meters. The depth of the EMS could not be measured at the time of the inspection due to manure being present in the lagoon. Confirmation from the operator and construction contractor indicated that the overall depth was approximately 4.8 meters below top of bank. The inside wall slope is approximately 3:1. The dimensions differ from the permitted construction dimensions. The current capacity is 17,906 cubic meters, the required capacity as calculated by Envirowest (2010) is 17,540 cubic meters. The amendment of the lagoon from a two cell storage system to a one stage storage system at the measured dimensions provides sufficient storage capacity.

The lagoon was constructed in the same area as indicated in the submitted site plan.


Envirowest Engineering is pleased to submit the inspection report to the Natural Resources Conservation Board (NRCB) and Roelof Meilink of Meilink Dairies Ltd. The information and conclusions contained in this report are for their sole use and such parties as may be normally involved in the approval process for such a facility. No other party is to rely upon the information contained within the report without the express written authorization of Envirowest Engineering.

We trust that this report meets your present needs. Please feel free to contact the undersigned, should you have any questions or require additional information.

Respectfully submitted,



Emily J. Low, P.Eng.
Envirowest Engineering

PERMIT TO PRACTICE 2206165 ALBERTA LTD.
RM SIGNATURE: 
RM APEGA ID #: <u>110373</u>
DATE: <u>March 25, 2021</u>
PERMIT NUMBER: P014810 The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

2206165 Alberta Ltd. o/a Envirowest Engineering
Association of Professional Engineers and Geoscientists of Alberta
Permit to Practice No. P14810

Cc'd: Roelof Meilink, [REDACTED]



THE PROVINCE OF ALBERTA
AGRICULTURAL OPERATION PRACTICES ACT
NATURAL RESOURCES CONSERVATION BOARD

In consideration of Decision Summary RA10004, Approval RA10004 is issued to:

Name: Meilink Dairies Ltd. (hereinafter referred to as 'applicant' or 'operator')
Address: RR #4, Site 19, Box 9, Red Deer, AB. T4N 5E4
Contact Person: Roelof Meilink
Phone No: 403-346-0311 Fax No: 403-346-0313

The operator is to adhere to and follow the requirements of the *Agricultural Operation Practices Act* (AOPA) and the regulations passed pursuant to that Act.

The operator is to adhere to the descriptions contained in the filed application and the decision summary together with the site plan, building plans, operating plan, manure management plan, engineering reports and other attached documents, unless otherwise noted in the following conditions.

The applicant or operator is responsible for all costs associated with monitoring, sampling, testing, recording and reporting requirements.

Approval RA10004 is subject to the following conditions:

Construction Conditions

Permitted Construction (based on the submitted site plan):

- Dairy facilities consisting of a 89m x 27.2m milking parlour/maternity barn, an attached 133.6m x 32.5m livestock barn and a 19.9m x 9.8m pump room
- 42.3m x 22.5m calf barn
- 110m x 73m x 4.8m deep liquid manure earthen manure storage (EMS) facility (2 cells, each 55m x 73m x 4.8m deep)

The following ancillary structures will also be constructed:

- 30.5m x 21.5m commodity shed
- 85m x 46m bunker silo area
- 46m x 18.3m hay shed
- 30.5m x 21.4m shop (used for dairy related equipment)

1. Livestock Barn
 - a. Written verification of the new livestock barn floor material and construction procedures, prepared by a qualified third party, must be provided to and approved by the NRCB in writing prior to animals and manure entering the barn. The verification must include the following: barn location with respect to the submitted site plan; dimensions of the barn; confirmation that the distance from the water table to the bottom of the floor at the time of construction was more than 1 metre; thickness of concrete liner for scrape alley floors; 56 day concrete compressive strength; method of concrete sulphate protection; and size and spacing of reinforcing.
 - b. Construction of the manure collection and storage portions of the livestock barn must be completed by June 30, 2013 unless otherwise agreed to in writing by the NRCB.
 - c. The manure collection and storage portions of the livestock barn must be inspected by NRCB personnel prior to animals or manure being placed in the barn.

2. Milking Parlour/Maternity Barn and Pump Room
 - a. Written verification of the new milking parlour/maternity barn and pump room floor and pit materials and construction procedures, prepared by a qualified third party, must be provided to and approved by the NRCB in writing before animals and manure enter the barn and manure enters the pump room. The verification must include the following: barn and pump room locations with respect to the submitted site plan; dimensions of the barn and pump room; pit dimensions; confirmation that distances from the water table to the bottom of the barn and pump room floors and pits at the time of construction were more than 1 metre; thicknesses of concrete liners for barn floors, pit walls and pit floors; 56 day concrete compressive strength; method of concrete sulphate protection; size and spacing of reinforcing; and method of sealing joints.
 - b. Construction of the manure collection and storage portions of the milking parlour/maternity barn and pump room must be completed by June 30, 2013 unless otherwise agreed to in writing by the NRCB.
 - c. The manure collection and storage portions of the milking parlour/maternity barn and pump room must be inspected by NRCB personnel prior to animals or manure being placed in the barn and manure being placed in the pump room.

3. Calf Barn
 - a. Written verification of the new calf barn floor material and construction procedures, prepared by a qualified third party, must be provided to and approved by the NRCB in writing prior to animals and manure entering the barn. The verification must include the following: barn location with respect to the submitted site plan; dimensions of the barn; confirmation that the distance from the water table to the bottom of the floor at the time of construction was more than 1 metre; thickness of concrete liner for scrape alley floors; 56 day concrete compressive strength; method of concrete sulphate protection; and size and spacing of reinforcing.
 - b. Construction of the manure collection and storage portions of the calf barn must be completed by June 30, 2013 unless otherwise agreed to in writing by the NRCB.
 - c. The manure collection and storage portions of the calf barn must be inspected by NRCB personnel prior to animals or manure being placed in the barn.



4. Liquid Earthen Manure Storage (EMS) Facility
 - a. Written verification of the new EMS construction materials and procedures, prepared by a professional engineer, must be provided to and approved by the NRCB in writing before manure can enter the EMS and the pump room, and before manure and animals can enter the milking parlour/maternity barn. The verification must include the following: EMS location with respect to the submitted site plan; dimensions including depths above and below grade; confirmation that the distance from the water table to the bottom of the EMS liner at the time of construction was more than 1 metre; liner thickness; interior and exterior wall side slopes; compaction test results; method of sealing and compacting around piping; installation of erosion protection at inlet pipe; and installation of an agitation ramp.
 - b. Construction of the EMS must be completed by June 30, 2013 unless otherwise agreed to in writing by the NRCB. The EMS must be completed before manure can enter the pump room and before manure and animals can enter the milking parlour/maternity barn.
 - c. The EMS must be inspected by NRCB personnel prior to manure being placed in the EMS.

This Approval becomes effective immediately. The Approval conditions will remain in effect unless amended by the NRCB.

June 28, 2010

(original signed by)

Sandi Roberts, P.Eng.
Approval Officer