

# 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)

## SOLID MANURE, COMPOST, & COMPOSTING MATERIALS: Barns, feedlots, & storage facilities - Naturally occurring protective layer

*(complete a copy of this section for EACH barn, feedlot, and storage facility for solid manure, composting materials, or compost with a naturally occurring protective layer for the liner)*

Facility description / name *(as indicated on site plan)*

1. \_\_\_\_\_
2. \_\_\_\_\_

### Manure storage capacity

	Length (m)	Width (m)	Depth below ground level (m)	<b>NRCB USE ONLY</b> Estimated storage capacity (m <sup>3</sup> )
1.				
2.				
TOTAL CAPACITY				

I plan to use a short-term solid manure storage (STMS) as part of my manure storage and handling plan for this CFO. (The AOPA requirements for STMS are set out in the NRCB [Short-Term Solid Manure Storage Requirements Fact Sheet](#).)

### Surface water control systems

Describe the run-on and runoff control system
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### Naturally occurring protective layer details

Thickness of naturally occurring protective layer	_____ (m)	Provide details (as required)	
Soil texture	_____ % sand	_____ % silt	_____ % clay
Hydraulic conductivity - naturally occurring protective layer	Depth and type of soil tested	Hydraulic conductivity (cm/s)	Describe test standard used

**Additional information** *(attach copies of soil test reports)*

<b>NRCB USE ONLY</b>	
Requirements met:	<input type="checkbox"/> YES <input type="checkbox"/> NO
Condition required:	<input type="checkbox"/> YES <input type="checkbox"/> NO
Report attached:	<input type="checkbox"/> YES <input type="checkbox"/> NO

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## SOLID MANURE, COMPOST, & COMPOSTING MATERIALS: Barns, feedlots, & storage facilities - Compacted soil liner

*(complete a copy of this section for EACH barn, feedlot, and storage facility for solid manure, composting materials, or compost with a compacted soil liner)*

Facility description / name *(as indicated on site plan)*

1. \_\_\_\_\_
2. \_\_\_\_\_

### Manure storage capacity

	Length (m)	Width (m)	Depth below grade to the bottom of the liner (m)	<b>NRCB USE ONLY</b> Estimated storage capacity (m <sup>3</sup> )
1.				
2.				
TOTAL CAPACITY				

I plan to use a short-term solid manure storage (STMS) as part of my manure storage and handling plan for this CFO. (The AOPA requirements for STMS are set out in the NRCB [Short-Term Solid Manure Storage Requirements Fact Sheet](#).)

### Surface water control systems

Describe the run-on and runoff control system

### Liner protection

Describe how the physical integrity of the liner will be maintained

<b>NRCB USE ONLY</b> Requirements met: <input type="checkbox"/> YES <input type="checkbox"/> NO
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## SOLID MANURE, COMPOST, & COMPOSTING MATERIALS: Barns, feedlots, & storage facilities - Compacted soil liner (cont.)

### Compacted soil liner details

Thickness of compacted liner	_____ (m)	Provide compacted liner details (as required)	
Soil texture	_____ % sand	_____ % silt	_____ % clay
Atterberg limits	Plastic limit _____	Liquid limit _____	Plasticity index _____
Hydraulic conductivity	Hydraulic conductivity (cm/s)		
	Describe test standard used		

**Additional information** (attach copies of soil test reports)

### NRCB USE ONLY

Requirements met:  YES  NO  
 Condition required:  YES  NO  
 Report attached:  YES  NO

### NRCB USE ONLY

Nine month manure storage volume requirements met  YES  YES With STMS  NO  
 Depth to water table: \_\_\_\_\_ Requirements met:  YES  NO  
 Depth to uppermost groundwater resource: \_\_\_\_\_ Requirements met:  YES  NO  
 ERST completed:  see ERST page for details

### Surface water control systems

Requirements met:  YES  NO Details/comments:

### Compacted soil liner details

Hydraulic conductivity after adjustment: \_\_\_\_\_

Liner specification comments (e.g. compaction, moisture content, thickness):

Leakage detection system required:  YES  NO If yes, please explain why.

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

## SOLID MANURE, COMPOST, & COMPOSTING MATERIALS: Barns, feedlots, & storage facilities - Concrete liner

*(complete a copy of this section for EACH barn, feedlot, and storage facility for solid manure, composting materials, or compost with a concrete liner)*

Facility description / name *(as indicated on site plan)* **1.** \_\_\_\_\_  
**2.** \_\_\_\_\_

### Manure storage capacity

	Length (m)	Width (m)	Depth below grade to the bottom of the liner (m)	<b>NRCB USE ONLY</b> Estimated storage capacity (m <sup>3</sup> )
1.				
2.				
TOTAL CAPACITY				

I plan to use a short-term solid manure storage (STMS) as part of my manure storage and handling plan for this CFO. The AOPA requirements for STMS are set out in the NRCB [Short-Term Solid Manure Storage Requirements Fact Sheet](#).

### Surface water control systems

Describe the run-on and runoff control system

### Liner protection

Describe how the physical integrity of the liner will be maintained

**NRCB USE ONLY**  
Requirements met:  YES  NO

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## SOLID MANURE, COMPOST, & COMPOSTING MATERIALS: Barns, feedlots, & storage facilities - Concrete liner (cont.)

### Concrete liner details

Concrete thickness	Method of sulphate protection:
Concrete strength	Concrete reinforcement size and spacing

Concrete requirements can be found in Technical Guideline Agdex 096-93

Guideline minimums:

Solid manure: 25MPa (D)

Solid manure (wet): 30MPa (C)

Method of sulphate protection:

Type 50 or Type 10 with fly ash or equivalent

### NRCB USE ONLY

Requirements met:  YES  NO

Condition required:  YES  NO

Report attached:  YES  NO

### Additional information *(attach as required)*

#### NRCB USE ONLY

Nine month manure storage volume requirements met  YES  YES With STMS  NO

Depth to water table: \_\_\_\_\_ Requirements met:  YES  NO

Depth to Uppermost groundwater resource: \_\_\_\_\_ Requirements met:  YES  NO

ERST completed:  see ERST page for details

#### Surface water control systems

Requirements met:  YES  NO Details/comments:

#### Concrete liner details

Leakage detection system required:  YES  NO If yes, please explain why.

# 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)

## SOLID MANURE, COMPOST, & COMPOSTING MATERIALS: Barns, feedlots, & storage facilities - Alternative liner

*(complete a copy of this section for EACH barn, feedlot, and storage facility for solid manure, composting materials, or compost with an alternative liner)*

Facility description / name *(as indicated on site plan)* **1.** \_\_\_\_\_  
**2.** \_\_\_\_\_

### Manure storage capacity

	Length (m)	Width (m)	Depth below grade to the bottom of the liner (m)	<b>NRCB USE ONLY</b> Estimated storage capacity (m <sup>3</sup> )
1.				
2.				
TOTAL CAPACITY				

I plan to use a short-term solid manure storage (STMS) as part of my manure storage and handling plan for this CFO. The AOPA requirements for STMS are set out in the NRCB [Short-Term Solid Manure Storage Requirements Fact Sheet](#).

### Surface water control systems

Describe the run-on and runoff control system

### Groundwater protection

Describe the proposed alternative liner and provide information used to show equivalency with AOPA requirements

**Additional information:** *(attach as required)*

#### NRCB USE ONLY

Requirements met:  YES  NO  
 Condition required:  YES  NO  
 Report attached:  YES  NO