



Ministry of Environment  
Inspection Record

Environmental  
 Protection  
 Division

<b>Inspection Number:</b> 25608		<b>Inspection Status:</b> FINAL	
EP System: <u>AMS</u>		Inspection Date: 2016-02-10	
EP System Number: UA25608		EP System Status: <u>Unauthorized</u>	
<b>Region:</b> <u>Okanagan</u>		Office: <u>Penticton</u>	
Trigger: <u>Planned</u>		<b>Incidents of Non-Compliance Observed: <u>Yes</u></b>	
Non-Compliance Decision Matrix Level: <u>Level 2</u>		Non-Compliance Decision Matrix Category: <u>Category B</u>	
Inspector Name(s): Stephanie Little		CPIX: <u>1 to 2 = Medium</u>	
Audit: <input type="text"/>		Total Non-Compliance(s): 2	
<b>Regulated Party:</b> Grace-Mar Farms Ltd.			
Regulated Party Contact(s): John Kampman and Jason Benjamin (on site)			
<b>Legal Address:</b> 5093 Salmon River Road, Armstrong, BC			
Phone No: 604-798-5513		Fax No: <input type="text"/>	
Contact Email: <u>gracemararm@gmail.com</u>			
<b>Location Description or Site Address:</b> 5093 Salmon River Road, Armstrong, BC			
Latitude: 50.481135 N		Longitude: 119.282769 W	
Receiving Environment(s): <u>Groundwater &amp; Land</u>			

## Summary

<b>MONITORING AND REPORTING REQUIREMENTS</b>	
Inspection Period: <b>From:</b> 2016-02-10 <b>To:</b> 2016-02-10	
<b>Requirement Source:</b> <u>Agricultural Waste Control Regulation</u>	
Activity: <u>On Site</u>	Waste Type: <u>Effluent</u>
<p><b>Inspection Summary:</b></p> <p>I attended the Grace-Mar Farms Ltd. site at approximately 10:50 a.m. I was met by Mr. Jason Benjamin, Farm Manager, who operates the Armstrong dairy for Grace-Mar Farm Ltd. based in Chilliwack, BC. I provided Mr. Benjamin with Agricultural Waste Control Regulation compliance promotion materials.</p> <p>The dairy parlour on site is a flush style barn and the rest is scraper. Mr. Benjamin informed me that there are currently 243 milking cows and an additional 232 under 2 years old on site. The farm owns approximately 360 acres of land and grows alfalfa and corn during the growing season. When I looked out over the farm fields, I observed brown staining on the snow in some areas that is indicative of recent application of manure. Part of the field was brown but the adjacent field was still snow covered (see Photos 4 &amp; 5). When asked, Mr. Benjamin informed me that he sprayed manure approximately one week previously.</p> <p>I requested to inspect the area where manure is stored and proceeded behind the barn to the storage facilities. There are two components, one large circular concrete storage facility and a lined rectangular lagoon almost directly beside it. When the barn is flushed out, the manure effluent enters a trench, is run through a Dairytech 360 manure separator and then pumped to the storage facility. From it's current state of approximately one third filled, I asked how long it would take to fill up again, and Mr. Benjamin stated approximately 7-10 days. Once full, spraying of manure occurs on the nearby fields. Mr. Benjamin informed me that a leak was recently identified in the parlour flush system that was causing excess effluent production.</p> <p>I reviewed a copy of the Agricultural Waste Control Regulation with Mr. Benjamin and emphasized Section 14, the section prohibiting spraying on frozen ground. He was provided a copy of the regulation and the Manure and Mortality Pit educational material for reference.</p> <p>Mr. Benjamin indicated that the farm is for sale and all the milk cows would be leaving for the Lower Mainland in April. The interim plan is to keep and care for the animals under 2 years old which will reduce the amount of effluent production.</p>	<p><b>Response:</b> <u>Warning</u></p>
<b>ACTIONS REQUIRED BY REGULATED PARTY:</b>	
<ol style="list-style-type: none"> <li>1) Provide the amount of effluent storage capacity on site (for both storage facilities).</li> <li>2) Demonstrate how storage capacity will meet effluent production moving forward to prevent the necessity to spread on frozen and crop free fields (rates of application that exceed the amount required for crop growth).</li> <li>3) Provide information on the source and location of domestic water on the farm.</li> </ol>	

**ADDITIONAL COMMENTS:**

The storage facility is estimated to be approximately 20 m in diameter (10 m radius) and 10 m deep, and thus its maximum storage capacity is approximately 3141 cubic meters. A conservative estimation is that 2000 m<sup>3</sup> (two thirds of the total capacity) of effluent is applied every 2 weeks, which equals 528,344 US gallons biweekly or 1,056,688 gallons per month. Assuming it was equally spread over the 360 acres on a monthly basis, that would be a rate of spread of approximately 2935 gallons per acre per month.

On the non-compliance decision matrix which guides the level of response, this inspection has determined: LEVEL 2 (Non-compliance resulting in a minor, temporary impact to the environment or minor, temporary threat to human health or safety) and CATEGORY B (Indications of future and ongoing compliance are uncertain; - Questionable awareness of and/or capacity to meet regulatory requirement).

<b>Compliance Summary</b>	<b>In</b>	<b>Out</b>	<b>N/A</b>	<b>N/D</b>
Operations	2	2	1	2

## Inspection Details

<b>Requirement Type: <u>Operations</u></b>
<b>Requirement Description:</b> Sec. 4 Allowable storage: Agricultural waste may be stored on a farm only if the waste is produced or used on that farm.
<b>Details/Findings:</b> Only waste produced on the farm is being stored.
<b>Compliance: <u>In</u></b>
<b>Requirement Type: <u>Operations</u></b>
<b>Requirement Description:</b> Sec. 5 Storage methods: When agricultural waste is stored, it must be stored (a) in a storage facility (structure, reservoir, lagoon, cistern, gutter, tank or bermed area for containing agricultural waste prior to its use or disposal, but does not include a vehicle or any mobile equipment used for transportation or disposal of agricultural waste; ) , (b) as field storage (temporary stock of agricultural waste ready to be drawn upon for use as a crop fertilizer or soil conditioner), or (c) in the case of waste from fur bearing animals, under their outdoor pens.
<b>Details/Findings:</b> Manure effluent is stored in a lined lagoon and a circular concrete storage facility.
<b>Compliance: <u>In</u></b>
<b>Requirement Type: <u>Operations</u></b>
<b>Requirement Description:</b> Sec. 6 Storage facility: A storage facility must (a) be of sufficient capacity to store all the agricultural waste produced or used on the farm for the period of time needed to allow for (i) the application of agricultural waste as a fertilizer or soil conditioner, or (ii) the removal of agricultural waste, (b) prevent the escape of any agricultural waste that causes pollution, and (c) be maintained in a manner to prevent pollution.
<b>Details/Findings:</b> The storage facility is not of sufficient capacity to store all the agricultural waste produced or used on the farm for the period of time needed to allow for the application of agricultural waste as a fertilizer or soil conditioner, as required by s. 6(a)(i). There is not sufficient capacity to store the manure over the winter. Mr. Benjamin confirmed verbally that 15 days is a conservative estimate of the storage facility capacity.

**Compliance:** Out

**Requirement Type:** Operations

**Requirement Description:**

Sec. 7 (1) Location of storage facility: A storage facility must be located at least 15 m from any watercourse (a place that perennially or intermittently contains surface water, including a lake, river, creek, canal, spring, ravine, swamp, salt water marsh or bog, and including a drainage ditch leading into any of the foregoing) and 30 m from any source of water for domestic purposes.

**Details/Findings:**

The storage facility was not within 30 m of a watercourse. However, the operations manager was uncertain of the location of the source of water for domestic purposes (drinking water). A review of iMap BC indicates that there may be four wells in the main area of operations, well ID 82425 is the closest well to the storage facilities but identified as an irrigation well. More information will be provided by Grace-Mar Farms Ltd. to ensure a domestic well is not within 30 m of the storage facilities. See attached document for more information.

**Compliance:** Not Determined

**Requirement Type:** Operations

**Requirement Description:**

Sec. 8(2) Field storage: (2) Solid agricultural waste may be stored on a field for more than 2 weeks if the agricultural waste is (a) stored for no longer than 9 months, (b) located at least 30 m from any watercourse or any source of water used for domestic purposes, and (c) stored in a manner that prevents the escape of agricultural waste that causes pollution.

**Details/Findings:**

No field storage noted during inspection.

**Compliance:** Not Applicable

**Requirement Type:** Operations

**Requirement Description:**

Sec. 12 Allowable application: Agricultural waste must be applied to land only as a fertilizer or a soil conditioner.

**Details/Findings:**

The application of manure effluent on fields of snow without crops was due to lack of storage capacity and not as a fertilizer or a soil conditioner.

**Compliance:** Out

**Requirement Type:** Operations

**Requirement Description:**

Sec. 14 Conditions unfavourable to application Agricultural wastes must not be applied (a) on frozen land, (b) in diverting winds, (c) on areas having standing water, (d) on saturated soils, or (e) at rates of application that exceed the amount required for crop growth, if runoff or escape of agricultural waste causes pollution of a watercourse or groundwater, or goes beyond the farm boundary.

**Details/Findings:**

Agricultural waste was applied approximately one week prior to this inspection and was still visible on the frozen ground (see Photos 5 to 6). This application was also confirmed orally by Mr. Benjamin. However, at the time of the inspection, it was not determined that runoff or escape of agricultural waste caused pollution of a watercourse or groundwater, or went beyond the farm boundary.

**Compliance:** Not Determined

**Were the following collected during inspection:**

Samples? <input type="checkbox"/>	Photos? <input checked="" type="checkbox"/>	EMS Number <input type="text"/>
<b>Other (please specify)</b>		
<input type="text"/>		
Is the Inspection related to an EA Project? <input type="checkbox"/>	EA Project Certificate Number: <input type="text"/>	

<b>INSPECTION CONDUCTED BY:</b>	
<i>Signature</i>	<i>Date Signed</i>
Stephanie Little	2016-04-06

<b>ENCLOSURE(S) TO REGULATED PARTY &amp; DESCRIPTION:</b>
<input type="text"/>
<a href="#">CVIS Archives</a>

<b>REGULATORY CONSIDERATIONS:</b>
<input type="text"/>

**DISCLAIMER:**

Please note that sections of the permit, regulation or code of practice referenced in this inspection record are for guidance and are not the official version. Please refer to the original permit, regulation or code of practice.

To see the most up to date version of regulations and codes of practices please visit:  
<http://www.bclaws.ca/>

If you require a copy of the original permit, please contact the inspector noted on this inspection record or visit: <http://www2.gov.bc.ca/gov/topic.page?id=DF89089126D042FD96DF5D8C1D8B1E41&title=Publicly%20Viewable%20Authorizations>

It is also important to note that this inspection record does not necessarily reflect each requirement or condition of the authorization therefore compliance is noted only for the requirements or conditions listed in the inspection record.

<b>Ministry of Environment</b>	<b>Okanagan Region</b>	<b>Mailing Address:</b>	<b>Phone:</b> (250) 490-8200
	Environmental Protection Division	102 Industrial Pl Penticton, BC V2A 7C8	Fax: (250) 490-2231 Website: <a href="http://www.gov.bc.ca/env">http://www.gov.bc.ca/env</a>