

Summary

MONITORING AND REPORTING REQUIREMENTS	
Inspection Period: From: 2016-07-14 To: 2016-08-24	
Requirement Source: Pollution Abatement Order	
Activity: <u>On Site</u>	Waste Type: <u>Effluent</u>
<p>Inspection Summary:</p> <p>On May 12, 2016, a Pollution Abatement Order (PAO) was issued to Wilma and Thys Haambucker as a result of increasing nitrogen levels in the local aquifer (aquifer 103) which is used to provide drinking water to residents in the Hullcar Valley.</p> <p>On July 14, 2016, the Haambuckers Farm, a dairy producer in Armstrong, BC was inspected by Environmental Protection Officers Devan Oldfield, Compliance Section and Deputy Director Christa Zacharias-Homer, Environmental Protection Division. The inspection was conducted to verify compliance with requirements placed in the PAO.</p> <p>The onsite inspection included a permanent manure storage pit for the main barn, the location of the proposed permanent manure storage location for the calf barn, the location of an historic field storage location for manure (removed prior to the inspection) and the domestic water system for the operation. A Manure and Nutrient report submitted as a requirement of the PAO was also reviewed as part of the inspection.</p> <p>A review of the requirements of the PAO against the inspection shows that the Haambuckers are in compliance with all requirements of their PAO.</p>	<p>Response: <u>Notice</u></p>
ACTIONS REQUIRED BY REGULATED PARTY:	
None	
ADDITIONAL COMMENTS:	
The next time that the permanent, concrete manure storage facility is emptied it would be advisable to take photos of the base and walls demonstrating that there are no cracks from which leachate can escape through. You may want to consider doing this annually for your own records.	

Compliance Summary	In	Out	N/A	N/D
Discharge	1	0	0	2
Operations	7	0	0	0

Inspection Details

Requirement Type: Operations

Requirement Description:

1
Retain a Qualified Professional to identify drainage management measures necessary to effectively control runoff and to ensure that solids, leachate, contaminated runoff and drift from sprayed materials do not enter watercourses or any source of water for irrigation or drinking water purposes or leave the property. Implement drainage management measures identified by the Qualified Professional by July 31, 2016.

Details/Findings:

The Manure and Nutrient Management report provided by Ruth McDougall for the Haambuckers operation lists the following key items to be followed for the management of drainage issues identified onsite;

- 1. Construct manure storage facility for manure generated in the calf barn during the winter storage period sized to hold 86 cubic metres of manure.
- 2. Maintain the stated setbacks during manure application.

Ruth further states that "No required drainage management measures were identified during site visits and in discussions with the farm owners aside from calf manure storage."

On August 23, 2016, I received photos from Wilma Haambucker, depicting their proposed alternate manure storage area from what was presented in their Manure and Nutrient Management Report. It is my opinion that the alternate location proposed by Wilma Haambucker more than meets the requirements for a permanent manure storage facility for the calf barn. See Photos 5 and 6.

Compliance: In

Requirement Type: Operations

Requirement Description:

2
By June 30, 2016 establish functional manure storage facilities, which have, at a minimum, the storage capacity necessary to store all manure produced by your agricultural operation, for the length of time necessary to allow for storage of such manure in accordance with this order until it can be applied to the Lands in accordance with the rates and timing of application determined under section 8 of this order.

Details/Findings:

Permanent manure storage facilities for the main barn were being utilized during the time of inspection. Thys informed me that his neighbour had the same type of structure but that he does not use it, and in the rare event that the Haambuckers facility generates more waste than it can handle, it is transferred into the unused facility until it can be applied to the fields. According to the Manure and Nutrient plan submitted for the Haambuckers by Ruth McDougall, the storage facility is of an adequate size to allow for manure storage until it can be applied to the Lands.

Compliance: In

Requirement Type: Operations

Requirement Description:

3
By June 30, 2016 ensure all permanent manure storage facilities have a minimum setback of:
i) 30 meters from any source of water used for domestic purposes including drinking water well or surface water intake;
ii) 15 meters from the high water mark of all watercourses; and

iii) 4.5 meters from all property lines.

Details/Findings:

- i) The permanent manure storage facility was more than 30m from the nearest source of water used for domestic purposes. The Haambuckers use a drinking water well that is situated to the northwest of the farm on the mountaintop.
- ii) There is a drainage ditch adjacent to the property, along Deep Creek Road, which is within 15m of the permanent manure storage facility. However, this ditch does not appear to lead to any of the defined watercourses under the Agricultural Waste Control Regulation and as such, there is no issue of non-compliance for this point.
- iii) The permanent manure storage facility is located less than 4.5m from the fence line. However, a review of iMap BC for property lines shows that the Haambuckers property extends across the roadway and a considerable distance across the adjacent field to the east. The Manure and Nutrient plan for the Haambuckers reflects this property line and therefore there is no issue of non-compliance with this point.

Compliance: In

Requirement Type: Operations

Requirement Description:

4

By June 30, 2016 ensure all field storage areas are not located:

- i) on areas having standing water,
- ii) on saturated soils, or
- ii) on low-lying areas in fields prone to seasonal flooding.

Details/Findings:

During time of inspection, no field stored manure was observed. Thys informed me that he would not be using field storage any longer.

Compliance: In

Requirement Type: Operations

Requirement Description:

5

By June 30, 2016 ensure all manure field storage areas have a minimum setback of:

- i) 30 meters from any source used for domestic purposes including a drinking water well or surface water intake,
- ii) 30 meters from the high water mark of all watercourses, and
- iii) 4.5 meters from all property lines.

Details/Findings:

During time of inspection, no field stored manure was observed. Thys informed me that he would not be using field storage any longer.

Compliance: In

Requirement Type: Operations

Requirement Description:

6

By June 30, 2016 ensure all manure field storage areas are:

- i) covered,
- ii) located on a base of low permeability soil (hydraulic conductivity of 10⁻⁶), e.g., layer of clay, or on an impermeable liner;
- iii) established such that any leachate must be collected and contained, and

iv) established and located such that storm or rain water flowing along the surface of any berms or other works constructed is diverted from entering the field_s stored manure pile(s).

Details/Findings:

During time of inspection, no field stored manure was observed. Thys informed me that he would not be using field storage any longer.

Compliance: In

Requirement Type: Operations

Requirement Description:

7

By June 30, 2016, ensure that no manure and/or manure effluent is be stored in sites other than storage facilities or field storage areas.

Details/Findings:

No manure or manure effluent was observed other than that seen in the permanent manure storage facility located to the immediate east of the main barn.

Compliance: In

Requirement Type: Discharge

Requirement Description:

8

Prior to any manure and/or inorganic fertilizer application to fields, retain a Qualified Professional to determine agronomically-correct rates of application of manure and/or inorganic fertilizer. All records and data used to calculate the manure application rate must be retained for two (2) years and must be made available to the Ministry upon request.

Details/Findings:

The Manure and Nutrient report provided by Ruth McDougall for the Haambuckers operation states that "the farm is currently not over-supplying nitrogen to the crops being grown." The Manure and Nutrient report shows the agronomically-correct rates of application for manure.

No fertilizers are used on the farm.

Compliance: In

Requirement Type: Discharge

Requirement Description:

9

Ensure all applications of manure and/or inorganic fertilizer are:
i) a minimum of 3.5 meters from the high water mark of a watercourse;
ii) 3.5 meters from all property lines;
iii) 3.5 meters from any industrial wells; and
iv) 30 meters from any drinking water wells.

Details/Findings:

The Manure and Nutrient report provided by Ruth McDougall for the Haambuckers operation states the following setbacks to be adhered to during manure application;

Domestic well: 30 m
Property lines: 3.5 m
High water mark of Jones Creek: 3.5 m

Compliance: Not Determined

Requirement Type: Discharge**Requirement Description:**

10

Prior to conducting any manure and/or inorganic fertilizer application, ensure the buffer requirements above have been visibly identified either using a visual marking system (such as flagging tape) or GPS enabled datalogger.

Details/Findings:

The Manure and Nutrient plan provided by Ruth McDougall for the Haambuckers operation states that "Setback distances should be marked with a visible marker such as flagging tape or with a GPS enabled data logger." As no manure application was conducted during the time of this inspection, it cannot be confirmed whether this requirement is being followed.

Compliance: Not Determined**Were the following collected during inspection:**

Samples? Photos? EMS Number

Other (please specify)

Is the Inspection related to an EA Project? EA Project Certificate Number:

INSPECTION CONDUCTED BY:

Signature

Date Signed

Devan Oldfield

2016-08-25

ENCLOSURE(S) TO REGULATED PARTY & DESCRIPTION:

CVIS Archives

REGULATORY CONSIDERATIONS:**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>

<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.

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