



Report Date: January 18, 2023

File: UA28107

Report Number: 200650

H.S. Jansen and Sons Farm Ltd.
5063 Knob Hill Road
Armstrong, BC
V0E 1B4

Attn: Dale Jensen

Dear Mr. Jensen:

Re: Non-compliance Advisory Letter, Agricultural Environmental Management Code of Practice

On November 3, 2022 Ministry of Environment and Climate Change Strategy (Ministry) Environmental Protection Officer Jurgen Deagle (Officer Deagle) conducted an on-site inspection of H.S. Jansen and Sons Farm Ltd. (Jansen's) dairy operation located at 5063 Knob Hill Road, Armstrong, BC (Facility) to verify compliance with the Code of Practice for Agricultural Environmental Management (Code). Present during the inspection were Dale and Bruce Jansen (Owners).

This Advisory, the alleged violations and the circumstances to which it refers will form part of the compliance history of H.S. Jansen and Sons Farm Ltd., and will be taken into account in the event of future non-compliance.

Please note that this Facility is considered to be out of compliance until such a time as it can be confirmed to meet all Code requirements.

Inspection Details:

The inspection period for this report is from November 3, 2022, to January 16, 2023 (Inspection Period) and included a review of the following documents:

- Comprehensive Monitoring Program and Environmental Impact Assessment, H.S. Jansen & Sons Farms Ltd. dated February 2017, prepared by Associated Environmental Consultants Inc.
- HS Jansen and Sons Ltd 2019 Nutrient Management Plan v.2 dated June 18, 2019 prepared by Ruth McDougall P.Ag.
- Canada-British Columbia Environmental Farm Plan: Planning Workbook, completed March 1, 2022, by Andrew Jansen/Jim Forbes
- 2022 Crop Plan H.S. Jansen & Sons - Home, undated, prepared by Emerald Bay Ag Services of Vernon BC.
- 2022 Crop Plan H.S. Jansen-Gracemar Farm, undated, prepared by Emerald Bay Ag Services of Vernon BC.
- 2022 NMP Response 2.pdf, received January 13, 2023 from Dale Jansen.

Below are the sections of the Code that were assessed for compliance during this inspection, as well as the associated details/findings and any actions required.

Requirement Description:	<p>Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA)</p> <p>2 (1): For the purpose of minimizing the introduction of waste into the environment and preventing adverse impacts to the environment and human health, this code requires persons to use environmentally responsible and sustainable agricultural practices when carrying out agricultural operations and associated activities described in subsections (2.1) and (3).</p> <p>(2) This code applies to a person who carries out an agricultural operation described in subsection (2.1) or an associated activity described in subsection (3)</p> <p>(a) on an agricultural land base that is not zoned for residential purposes, and</p> <p>(b) whether or not for a commercial purpose.</p> <p>(2.1) Subject to subsection (4), rearing or keeping livestock, poultry or insects, or growing and harvesting agricultural products, is an agricultural operation for the purposes of this code if done for one or more of the following purposes:</p> <p>(a) for consumption or use by humans, including as food, fibre or fuel;</p> <p>(b) for use as animal feed;</p> <p>(c) for use as breeding stock or to produce seedlings or flowers;</p> <p>(d) for work or recreational purposes, in the case of livestock or poultry;</p> <p>(e) for use in landscaping or for ornamental purposes, in the case of plants, including trees.</p> <p>(3) Subject to subsection (4), if done together with an agricultural operation referred to in subsection (2.1), this code applies to the following activities:</p> <p>(a) storing nutrient sources;</p> <p>(b) storing agricultural by-products that are not a source of nitrogen or phosphorus;</p> <p>(b.1) storing the primary products of livestock, poultry, insects, plants and fungi;</p> <p>(c) carrying out agricultural composting processes;</p> <p>(d) applying nutrient sources to land;</p> <p>(e) washing, grading or packaging agricultural products, if carried out on the same agricultural land base as the livestock or poultry were reared or kept or the agricultural products were grown or harvested;</p> <p>(f) disposing of or incinerating mortalities and processing wastes, if carried out on the same agricultural land base as the livestock or poultry were reared or kept;</p> <p>(g) operating equipment in relation to</p> <p>(i) an activity referred to in this subsection, or</p> <p>(ii) other activities in relation to agriculture, other than processing primary products beyond the activities described in paragraph (e).</p>
Details/Findings:	<p>The Facility is an agricultural operation on land not zoned for residential purposes. The Facility produces milk, an agricultural product, for consumption by humans. Therefore, the Facility is subject to the Code.</p>
Compliance:	<p>In</p>

Requirement Description:	<p>Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA)</p> <p>17(1)(a): A person who, for the purposes of an agricultural operation, performs an activity described in column 1 of the following table must ensure a setback of at least the distances, in m, set out opposite the activity in columns 2 to 4:</p> <p>Table found here: https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/8_2019#section17</p>
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Details/Findings:	Jansen's carries out agricultural operations, including nutrient application, over an area of more than 2000 hectares, including their own land, rented fields and farms operated by others. The Officer did not visit individual sites to evaluate setbacks. The Owners informed Officer Deagle that composting, nutrient storage and nutrient application follow all setback requirements. Jansen's "2022 Farm Planning Workbook" also reports that setback distances are being met. Compliance is assessed based on these statements.
Compliance:	In

Requirement Description:	Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA) 22: A person who is required under this Part to have a protective base must do all of the following: (a) maintain the base to prevent leakage and keep a record of all maintenance; (b) assess the protective base for leakage at least once every 6 months; (c) take corrective action to stop any leakage found on assessment and prevent further leaks; (d) for each assessment conducted under paragraph (b), keep a record of (i) the date and results of the assessment, and (ii) the corrective actions taken under paragraph (c), if any.
Details/Findings:	The Facility's manure is stored in an earthen basin dug into the ground, and pursuant to Section 24 of the Code (see Section below), a protective base is required. This requirement has been met through installation of an impermeable liner. Section 22 requires maintenance and assessment of the protective base and that these activities be recorded. Officer Deagle requested the lagoon assessment records required under Section 22 from Jansen's on December 13, 2022, December 15, 2022, January 9, 2023 and January 13, 2023. The information was not provided, therefore, compliance with this section could not be determined.
Compliance:	Not Determined
Actions to be taken:	Maintain, assess and stop leakage of protective base, and keep records as required by this section.

Requirement Description:	Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA) 24 Despite section 23 (1) a person who began, before February 28, 2019, to store liquid manure in an earthen basin dug into the ground in a vulnerable aquifer recharge area must do all of the following: (d) whether or not any leaks are found on assessment under paragraph (a), have a protective base on the bottom and sides of the storage basin before February 28, 2029, or an earlier date required by a director.
Details/Findings:	Jansen's began storing liquid manure in a dug earthen basin before February 28, 2019. The Facility is located within the Hullcar Aquifer recharge area. This is a designated vulnerable aquifer. Therefore, a protective base is required by February 28, 2029. The protective base has been installed and the Facility's liquid manure waste is stored in lined lagoons.
Compliance:	In

Requirement Description:	Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA) 25 (2): A person who uses temporary field storage for 2 weeks or more, or an outdoor agricultural composting pile, in a vulnerable aquifer recharge area must not locate the storage or pile directly on or over soil that has a saturated hydraulic conductivity of more than 10 ⁻³ cm/s, commonly referred to as coarse-textured soil.
Details/Findings:	Jansen's 2022 Environmental Farm Plan Workbook indicates that it uses temporary field storage. The Workbook does not indicate the duration of storage or the specific locations. Soil types in the Hullcar area are described in the 1986 MOE Technical Report " <i>Soils of the Okanagan and Similkameen Valleys</i> ". The area is dominated by sandy loam and silty loam which are generally not considered coarse-textured soil, however, some areas within the Hullcar region are coarse sands and gravels and not suitable for temporary field storage.. On December 13, 2022, December 15, 2022, January 9, 2023 and January 13, 2023 Officer Deagle requested details regarding temporary field storage from Jansen's. This information was not provided. Without specific storage locations, compliance with this section cannot be determined.
Compliance:	Not Determined
Actions to be taken:	Ensure temporary field storage is not located on coarse-textured soil.

Requirement Description:	Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA) 26: A person who irrigates land in a vulnerable aquifer recharge area must ensure that the quantity and timing of irrigation does not exceed crop needs.
Details/Findings:	Jansen's has an irrigation pipeline system supplying its own land, rented fields and other farms located within the Hullcar vulnerable aquifer recharge area. The system normally uses plain water, but occasionally pumps nutrients using liquid manure from the Facility's manure storage lagoons. Jansen's submitted a 2019 Nutrient Management Plan and 2022 Farm Plans which calculate application quantity and timing for each field as to not exceed crop needs.
Compliance:	In

Requirement Description:	Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA) 27 (4): A person must prepare a risk assessment, in writing and in the form and manner required by a director, (a) for each field to which nutrient sources are to be applied, and (b) considering the special circumstances of the high-precipitation area and any high-risk conditions.
Details/Findings:	Jansen's submitted a " <i>Comprehensive Monitoring Program and Environmental Impact Assessment</i> ", dated February 2017, prepared by Associated Environmental Consultants Inc., as well as an annual nutrient management plan (June 2019). These documents include a risk assessment of nutrient application for each field.
Compliance:	In

Requirement Description:	<p>Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA)</p> <p>33 (1)(a): A person may store liquid manure only as follows: (a) liquid manure may be stored on a person's agricultural land base only if the liquid manure is subsequently used in agricultural operations carried out on the agricultural land base on which the liquid manure was produced or stored</p>
Details/Findings:	<p>Liquid manure is produced and then stored at the Facility in two earthen lagoons. The manure is piped through irrigation systems and immediately applied to Jansen's own lands, rented fields and some to third-party farm operations located within the Hullcar area. The 2019 nutrient management plan states that approximately 11,000,000 gallons of liquid manure would be supplied to third party farms. Liquid manure can only be applied to fields that are part of Jansen's agricultural operation or lands on which the liquid manure was stored. As some fields on which the liquid manure was applied are not part of Jansen's operation, nor where it was stored, Jansen's is out of compliance with this section.</p>
Compliance:	Out

Requirement Description:	<p>Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA)</p> <p>34: A person who stores agricultural by-products must ensure all of the following:</p> <p>(a) that any leachate generated during storage is (i) collected or contained, and (ii) not discharged directly to land or water;</p> <p>(b) that runoff is diverted away from the storage structure or storage area;</p> <p>(c) that the storage structure or storage area is maintained so as to prevent contaminated runoff, leachate, wastewater and solids from escaping;</p> <p>(d) if contaminated runoff, leachate, wastewater or solids escape from storage, they do not enter a watercourse, cross a property boundary, or go below the water table;</p> <p>(e) that air contaminants from stored agricultural by-products do not cross a property boundary;</p> <p>(f) that agricultural by-products are stored in a manner that will deter the attraction of, and access by, domestic pets, wildlife and vectors.</p>
Details/Findings:	<p>Jansen's stores manure and the product of an agricultural composting process, which are considered agricultural by-products.</p> <p>a) Leachate generated from agricultural operations at the Facility is collected and contained on a sloped concrete pad and either recycled into wash water for flushing stalls or added to the liquid manure storage lagoon for subsequent land-application.</p> <p>b) Runoff is diverted away from the storage area by site grading.</p> <p>c) <i>See Section 34 (c) below</i></p> <p>d) Run-off from the site is directed back into the manure processing area and will not enter a watercourse or cross the property boundary. A concrete slab on the manure processing area, and lagoon liner prevent materials from going below the water table.</p> <p>e) <i>See Section 34 (e) below</i></p> <p>f) <i>See Section 34 (f) below</i></p> <p>Agricultural by-product storage at Jansen's is in compliance with sub-sections (a), (b) and (d). See below for assessment of the remaining subsections.</p>
Compliance:	In

Requirement Description:	<p>Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA)</p> <p>34: A person who stores agricultural by-products must ensure all of the following:</p> <p>(a) that any leachate generated during storage is (i) collected or contained, and (ii) not discharged directly to land or water;</p> <p>(b) that runoff is diverted away from the storage structure or storage area;</p> <p>(c) that the storage structure or storage area is maintained so as to prevent contaminated runoff, leachate, wastewater and solids from escaping;</p> <p>(d) if contaminated runoff, leachate, wastewater or solids escape from storage, they do not enter a watercourse, cross a property boundary, or go below the water table;</p> <p>(e) that air contaminants from stored agricultural by-products do not cross a property boundary;</p> <p>(f) that agricultural by-products are stored in a manner that will deter the attraction of, and access by, domestic pets, wildlife and vectors.</p>
Details/Findings:	<p>Jansen's stores manure and the product of an agricultural composting process, which are considered agricultural by-products.</p> <p>a) See Section 34 (a) above</p> <p>b) See Section 34 (b) above</p> <p>c) On December 13, 2022, December 15, 2022, January 9, 2023 and January 13, 2023 Officer Deagle requested that Jansen's provide records of maintenance of the liquid manure storage structure. The records were not submitted.</p> <p>d) See Section 34 (d) above</p> <p>e) There is no requirement for, or record of air monitoring at this site.</p> <p>f) See Section 34 (f) below</p> <p>Compliance with subsections (c) and (e) can not be determined without additional information.</p>
Compliance:	Not Determined

Requirement Description:	<p>Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA)</p> <p>34: A person who stores agricultural by-products must ensure all of the following:</p> <p>(a) that any leachate generated during storage is (i) collected or contained, and (ii) not discharged directly to land or water;</p> <p>(b) that runoff is diverted away from the storage structure or storage area;</p> <p>(c) that the storage structure or storage area is maintained so as to prevent contaminated runoff, leachate, wastewater and solids from escaping;</p> <p>(d) if contaminated runoff, leachate, wastewater or solids escape from storage, they do not enter a watercourse, cross a property boundary, or go below the water table;</p> <p>(e) that air contaminants from stored agricultural by-products do not cross a property boundary;</p> <p>(f) that agricultural by-products are stored in a manner that will deter the attraction of, and access by, domestic pets, wildlife and vectors.</p>
Details/Findings:	<p>Jansen's stores manure and the product of an agricultural composting process, which are considered agricultural by-products.</p> <p>a) See Section 34 (a) above</p> <p>b) See Section 34 (b) above</p> <p>c) See Section 34 (d) above</p> <p>d) See Section 34 (d) above</p> <p>e) See Section 34 (e) above</p> <p>f) Agricultural by-products are stored in the open on the concrete slab or in the lined lagoons. There is a barb-wire fence around the site, but this does not deter domestic pets, wildlife, birds or vectors. Therefore, Jansen's is out of compliance with this subsection.</p>
Compliance:	Out

Requirement Description:	<p>Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA)</p> <p>36 (3): A person who stores liquid manure in a permanent storage structure must ensure all of the following:</p> <ul style="list-style-type: none"> (a) that the level of stored liquid manure reaches no more than 30 cm below the top of the structure; (b) that the structure has a protective base; (c) that the protective base is maintained to prevent leakage; (d) that the stored liquid manure does not leak from the structure or overflow.
Details/Findings:	<p>The Facility cleans livestock stalls by flushing them with water. Solids from stalls are settled and screened out on the concrete pad. Liquids are pumped to the manure storage lagoons or to a vertical concrete storage tank and re-used for flushing stalls.</p> <p>On November 3, 2022 Officer Deagle observed that the level of stored liquid manure was several meters below the top of the lagoons.</p> <p>Officer Deagle observed visible evidence of liquid overflow from the storage tank used for recycled stall flushing water. The Owners informed Officer Deagle that the tank had overflowed a few days before the inspection. Therefore, Jansen's is out of compliance with Sections 36(3)(a) and 36(3)(d).</p>
Compliance:	Out
Actions to be taken:	Monitor all storage structures to ensure liquid level is at least 30 cm below the top and that they do not leak or overflow.

Requirement Description:	<p>Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA)</p> <p>37 (1): A person who uses temporary field storage to store solid agricultural by-products must ensure all of the following:</p> <ul style="list-style-type: none"> (a) that field storage is not located (i) in any area in which there is standing water or water-saturated soil, or (ii) on any low-lying area of a field prone to annual seasonal flooding, during the flood season or when flooding is imminent; (b) that field storage is monitored at least once each week to ensure compliance with this code; (c) that, before the end of the growing period, but no later than 7 months after storage begins, all field-stored solid agricultural by-products are: <ul style="list-style-type: none"> (i) used, (ii) moved to a permanent storage structure, if storage is allowed under section 32 (a) or (b) [allowable storage and use of solid agricultural by-products], or (iii) transported away from the agricultural land base; (d) that vegetation is grown on the storage location after the field-stored solid agricultural by-products are used, moved or transported in accordance with paragraph (c), either in the current or next growing season; (e) that, if field storage is for a period of more than 2 weeks, temporary field storage does not occur in the same location again for at least 3 years.
Details/Findings:	<p>Jansen's 2022 Environmental Farm Plan Workbook indicates that it uses temporary field storage. The Workbook does not indicate the duration of this storage or the specific locations.</p> <p>On December 13, 2022, December 15, 2022, January 9, 2023 and January 13, 2023 Officer Deagle requested that Jansen's provide records of any temporary field storage locations, pile dates, and weekly monitoring records. The information was not provided, therefore, Jansen's compliance with this section could not be determined.</p>
Compliance:	Not Determined
Actions to be taken:	Ensure any temporary field storage is in compliance with this Section.

Requirement Description:	Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA) 37 (2): A person who uses temporary field storage must keep a record of all of the following: (a) the type and source of the materials being stored and the date that storage began; (b) the location of the temporary field storage; (c) the weekly results of monitoring conducted under subsection (1) (b).
Details/Findings:	Jansen's 2022 Environmental Farm Plan Workbook indicates that it uses temporary field storage. The Workbook does not indicate the duration of this storage or the specific locations. On December 13, 2022, December 15, 2022, January 9, 2023 and January 13, 2023 Officer Deagle requested that Jansen's provide records of any temporary field storage locations, type, pile dates, and weekly monitoring records. The information was not submitted, therefore, compliance with this section could not be determined.
Compliance:	Not Determined
Actions to be taken:	Keep records of any temporary field storage as required by this section.

Requirement Description:	Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA) 49 (1): A person must not apply nutrient sources to land (a) on which there is standing water or water-saturated soil, (b) on ground in which the top 5 cm of soil is frozen so as to be impenetrable to manually-operated equipment, (c) on a field having at least 5 cm of ice or snow over at least 50 percent of its area, or (d) at a rate of application, under meteorological, topographical or soil conditions, or in a manner, that may cause nutrient sources or contaminated runoff, leachate or solids to enter a watercourse, cross a property boundary or go below the water table.
Details/Findings:	The Owners informed Officer Deagle that nutrients are only applied in non-frozen conditions and in a manner that will not cause run-off. Jansen's 2022 Farm Workbook (Question 260) also indicates that " <i>nutrient sources (including manure and fertilizer) are applied to avoid the following conditions: strong, divergent windy conditions; storm events; water-saturated or flooded soils; and frozen or snow-covered soil.</i> " Based on the information provided Jansen's is in compliance with this section.
Compliance:	In

Requirement Description:	Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA) 51 (1): A person who applies nutrient sources to land must ensure all of the following: (a) that nutrient sources and leachate produced by nutrient sources do not escape during transportation or piping; (b) that nutrient sources are not discharged or applied directly into a watercourse, across a property boundary or below the seasonal high water table; (c) that drift from nutrient sources sprayed onto land does not enter a watercourse, cross a property boundary or go below the seasonal high water table; (d) that the total amount of available nitrogen in the soil, if applicable, and from all nutrient sources applied in one year of application, is equal to or less than the amount of nitrogen needed for optimum crop growth and yield.
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Details/Findings:	<p>The Owners informed Officer Deagle that the manure irrigation system has a pressure sensor alarm that notifies them of leaks or piping failures.</p> <p>The submitted 2022 Farm Planning Workbook states that Jansen's manages nutrient application to ensure that nutrient sources (including drift from sprayed liquids) do not enter surface water, cross a property boundary, or have a direct path to groundwater.</p> <p>They have also submitted a "<i>Comprehensive Monitoring Program and Environmental Impact Assessment</i>", dated February 2017, prepared by Associated Environmental Consultants Inc., as well as an annual nutrient management plan based on post-season soil test results. Following the recommendations in these documents minimizes risks of nutrient application and ensures optimum nitrogen is available for each field.</p>
Compliance:	In

Requirement Description:	<p>Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA)</p> <p>51 (2): A person who applies nutrient sources to land, other than land that is part of an agricultural operation having an agricultural land base totalling less than 2 ha, must make and keep records of all of the following in respect of each field to which the nutrient sources are applied:</p> <p>(a) the location and size of the field; (b) the crop nutrient requirements of the field; (c) the crop yields of the field; (d) the date and location of each application of nutrients; (e) whether the nutrient sources were solids or liquids and the type of nutrient sources applied; (f) the calculated nutrient application rate; (g) the rate at which nutrients were actually applied; (h) the results of testing conducted under section 53 [requirement to test soil].</p>
Details/Findings:	On January 9, and 13, 2023 Jansen's submitted " <i>2022 Crop Plan H.S. Jansen & Sons - Home</i> ", and " <i>2022 Crop Plan - Gracemar Farm</i> " These plans included all information required by this Section.
Compliance:	In

Requirement Description:	<p>Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA)</p> <p>53 (1): Subject to subsection (2), a person who applies nutrient sources to land must have the soil in each field tested as follows:</p> <p>(a) if the result of a nitrate test for the field is 100 kg N/ha or more, a nitrate test must be conducted again for that field the following year; (b) if paragraph (a) does not apply, a nitrate test must be conducted at least once every 3 years; (c) a phosphorus test must be conducted at least once every 3 years.</p>
Details/Findings:	Jansen's submitted " <i>2022 Crop Plan H.S. Jansen & Sons - Home</i> ", and " <i>2022 Crop Plan - Gracemar Farm</i> " The plans indicate that soils in were tested for nitrates and phosphorous in October 2021. This is within the required three year window. While some shallow soil tests were elevated, none of the 2021 nitrate results exceeded 100 kg/Ha at the 30 cm soil depth specified in the nitrate sampling guidance.
Compliance:	In

Requirement Description:	<p>Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA)</p> <p>54: (a) a post-harvest nitrate test that measures the amount of nitrate-nitrogen left in soil and not used by the most recently harvested crop must be conducted</p> <p>(i) using a representative sample, and</p> <p>(ii) after the last harvest of the growing season but before the autumn rains typically begin;</p> <p>(b) a test equivalent to a post-harvest nitrate test that will produce results representative of the amount of nitrate-nitrogen left in soil and not used by the most recently harvested crop.</p>
Details/Findings:	The "2022 Crop Plan H.S. Jansen & Sons - Home" and "2022 Crop Plan - Gracemar Farm" include soil test records for nitrates and phosphorous from October 2021. These tests were conducted within the appropriate test window and complied with provincial sampling guidance documents.
Compliance:	In

Requirement Description:	<p>Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA)</p> <p>56 (1): Subject to section 58 [exemptions or modifications to nutrient management plans], a person who applies nutrient sources to a field must have a nutrient management plan if</p> <p>(a) the field is part of an agricultural operation having an agricultural land base totalling 5 ha or more,</p> <p>(b) the result of a nitrate test for the field is 100 kg N/ha or more, and</p> <p>(c) the conditions of either subsection (2) or (3) are met.</p> <p>56 (2) For the purpose of subsection (1) (c), a nutrient management plan is required if the field is located in a vulnerable aquifer recharge area shown on Map B1, as listed in Schedule B.</p>
Details/Findings:	The Facility is located within a vulnerable aquifer recharge area as shown on Map B1, therefore, a nutrient management plan is required. Jansen's submitted a nutrient management plan dated June 18, 2019.
Compliance:	In

Requirement Description:	<p>Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA)</p> <p>57 (1): A nutrient management plan must be prepared by</p> <p>(a) a qualified professional who has successfully completed a course in nutrient management planning, offered in British Columbia and approved by a director, if the result referred to in section 56 (c) [when nutrient management plan is required] is 150 kg N/ha or more, and</p> <p>(b) by an experienced person, in any other case.</p>
Details/Findings:	The submitted nutrient management plan was prepared by a Professional Agrologist and meets the requirement of this section. The plan was titled " <i>HS Jansen and Sons Ltd 2019 Nutrient Management Plan v.2</i> ", dated June 18, 2019 prepared by Ruth McDougall P.Ag.
Compliance:	In

Requirement Description:	Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA) 57 (2): A person who prepares a nutrient management plan must (a) consider all nutrient sources available to the crop, including nutrients in the soil and nutrients applied to and removed from a field, and (b) design the plan to achieve the following objectives; (i) to minimize the risk of nitrogen and phosphorus loss from a field to the environment; (ii) to achieve an agronomic nitrogen balance of 0 for a field.
Details/Findings:	The June 18, 2019 nutrient management plan considered all nutrient sources, planned for minimal nutrient loss and predicted a nitrogen balance of zero.
Compliance:	In

Requirement Description:	Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA) 57 (3): A person who prepares a nutrient management plan must sign and date the completed plan.
Details/Findings:	The nutrient management plan was signed by Ruth McDougall P.Ag. The cover page was dated June 18, 2019. The signature page was and dated March 29, 2019. Ensure date on signature page matches report cover date.
Compliance:	In
Actions to be taken:	

Requirement Description:	Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA) 59 (1): A person who must have a nutrient management plan must do all of the following: (a) if the plan is prepared by a qualified professional, notify a director, in the form and manner required by the director, that a plan has been made or revised; (b) implement the plan: (c) keep a copy of the plan, the information on which it is based, including information from records made under section 51 (2) [general requirements for applications to land], and of any changes made to the plan, and make and keep records to demonstrate compliance with the plan.
Details/Findings:	The nutrient management plan was submitted to the Ministry in 2019. The Owners informed Officer Deagle that the farm is reviewed annually and updated as required. No updates or plan revisions have been received. The 2022 Farm Workbook, p. 48, indicates that the nutrient management plan is being followed. Records on storage lagoon inspection and temporary field storage were requested, but not received. Therefore, compliance with subsections (a) and (c) cannot be determined.
Compliance:	Not Determined

Requirement Description:	Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA) 59 (2): A person who must have a nutrient management plan prepared must do the following: (a) review the plan at least once each year; (b) if no significant change has been made to the person's agricultural operation within the year, make any necessary changes identified by the review.
Details/Findings:	During the November 3, 2022 inspection, the Owners indicated to Officer Deagle that the nutrient management plan is reviewed annually.
Compliance:	In

Requirement Description:	Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA) 62: A person responsible for a confined livestock area or confined poultry area must ensure all of the following: (a) that livestock and poultry do not have direct access to a drinking water source or watercourse; (b) that contaminated runoff, leachate, solids and air contaminants do not enter a watercourse, cross a property boundary or go below the water table; (c) that the accumulation of manure, animal bedding and feed within the area is managed so as to prevent contaminated runoff, leachate and solids from escaping; (d) that if contaminated runoff, leachate or solids escape from the area, they are (i) collected and contained, and (ii) not discharged directly to land or water.
Details/Findings:	Livestock are housed in a roofed, concrete floored structure. There is no access to a watercourse. All wastes are collected in a paved manure management area and re-used or applied to fields as nutrients.
Compliance:	In

Requirement Description:	Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA) 68: A person who carries out an activity to which this Division applies must ensure all of the following: (a) that mortalities are not disposed of into, and are prevented from entering, a watercourse; (b) that, if a mortality enters a watercourse, the owner of the mortality removes that mortality immediately; (c) that processing waste does not enter a watercourse; (d) that contaminated runoff, leachate, solids and air contaminants from the activity do not enter a watercourse, cross a property boundary or go below the seasonal high water table; (e) that odours and particulate matter from the activity are minimized; (f) that the activity will be carried out in a manner that will deter the attraction of, and access by, domestic pets, wildlife and vectors.
Details/Findings:	During the November 3, 2022 site inspection Officer Deagle observed an outdoor mortality composting area. This area was located on the northwest corner of the concrete manure handling pad and delineated by concrete lock-blocks. Carcasses were mixed with manure solids and allowed to decompose. The Owners estimated a mortality rate of 5-10% of the herd per year, approximately 65-130 animals. There was visible leachate flowing from the compost area onto the manure handling pad as well as onto a gravel road surrounding the pad. There was no visible evidence that run-off or leachate was entering a watercourse. No odours or particulates were observed. For subsections (a) - (e) Jansen's is in compliance. Subsection (f) is assessed below.
Compliance:	In

Requirement Description:	<p>Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA)</p> <p>68: A person who carries out an activity to which this Division applies must ensure all of the following:</p> <p>(a) that mortalities are not disposed of into, and are prevented from entering, a watercourse;</p> <p>(b) that, if a mortality enters a watercourse, the owner of the mortality removes that mortality immediately;</p> <p>(c) that processing waste does not enter a watercourse;</p> <p>(d) that contaminated runoff, leachate, solids and air contaminants from the activity do not enter a watercourse, cross a property boundary or go below the seasonal high water table;</p> <p>(e) that odours and particulate matter from the activity are minimized;</p> <p>(f) that the activity will be carried out in a manner that will deter the attraction of, and access by, domestic pets, wildlife and vectors.</p>
Details/Findings:	<p>Officer Deagle did not observe any measures to deter attraction of, or access by, pets, wildlife or vectors during the November 2022 site inspection. Officer Deagle requested additional information from Jansen's on how they deterred wildlife, etc from accessing the mortalities. On January 13, 2023 Jansen's responded that "<i>Compost is buried under manure solids.</i>" On November 3rd, 2022 at least one carcass was visible on the mortality composting pile. However, this may have been a recent addition and not yet covered. The bulk of the pile was covered by manure solids, therefore Jansen's is found in compliance with this requirement.</p> <p>Jansen's must ensure the mortalities are covered regularly and if pets, wildlife or vectors are attracted or access the site, then additional measures must be implemented.</p>
Compliance:	In

Requirement Description:	<p>Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA)</p> <p>71 (1): A person who disposes of mortalities or processing waste by adding the mortalities or processing waste to an agricultural composting process must ensure all of the following:</p> <p>(a) that composting occurs only in a composting structure or in an outdoor agricultural composting pile;</p> <p>(b) that contaminated runoff, leachate and solids from the compost do not enter a watercourse, cross a property boundary or go below the water table;</p> <p>(c) that air contaminants from the compost do not cross a property boundary;</p> <p>(d) that composting will be carried out in a manner that will deter the attraction of, and access by, domestic pets, wildlife and vectors; (e)-(f) Repealed. [B.C. Reg. 179/2021, App. 3, s. 24 (b).]</p>
Details/Findings:	<p>Mortalities from the Facility are composted on-site. The concrete block compost structure is located on the concrete pad of the manure management area and most leachate is collected by the manure handling system.</p> <p>During the November 3, 2022 site inspection, Officer Deagle observed that some leachate is running off the pad onto an adjacent gravel road. The road is sloped so that most surface runoff drains either to the manure lagoons or back to the concrete pad, but the road is permeable and some of the leachate is entering the ground. There is no requirement for monitoring wells, therefore possible impacts to the water table can not be determined.</p> <p>There is no requirement for air monitoring at this site, therefore air contaminants crossing the property boundary cannot be determined.</p> <p>The potential attraction of wildlife was discussed in Section 68 above.</p>
Compliance:	Not Determined

Requirement Description:	Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA) 71 (3): A person who disposes of mortalities or processing waste by adding the mortalities or processing waste to an agricultural composting process must keep a record of all of the following: (a) the type and source of the mortalities or processing waste being composted; (b) whether any of the mortalities or processing waste being composted contains specified risk material within the meaning of the Code of Practice for the Slaughter and Poultry Processing Industries.
Details/Findings:	The Owners and their <i>Farm Planning Workbook</i> indicate that carcasses from the Facility are composted on-site. The Owners estimated 5-10% mortality per year or 65-130 animals. No specified risk material is present.
Compliance:	In

Requirement Description:	Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA) 73 (5): A person who applies wastewater or the product of an agricultural composting process to land must keep a record of all of the following: (a) the location of the fields to which the wastewater or product was applied; (b) the date of the application; (c) whether any of the applied wastewater or products contain specified risk material and, if so, the location of the fields to which that wastewater or those products have been applied.
Details/Findings:	Jansen's applies wastewater, solid and liquid manure and the product of their mortality composting process to their land. On January 9, 2023 and January 13, 2023 Jansen's provided 2002 Farm Crop Plans for Gracemar and Home fields. These books included information on which field manure and fertilizer were applied to, volume/mass applied and the application date. Compost product was combined with solid manure and is not tracked separately.
Compliance:	In

Requirement Description:	Environmental Management Act, Code of Practice for Agricultural Environmental Management (EMA) 79: A person who must make or keep records under this code must (a) keep the records for at least 5 years, and (b) submit the records to a director or an officer within 5 business days of being required by the director or officer.
Details/Findings:	On December 13, 2022, December 15, 2022, January 9, 2023 and January 13, 2023 Officer Deagle requested that Jansen's provide records required to complete this inspection report. While a partial response was received, the response did not include records on maintenance of storage lagoons, pursuant to Sections 22 (d) and 25(2), nor records regarding temporary field storage pursuant to Section 34 and 37(2). Therefore, Jansen's is out of compliance with this section.
Compliance:	Out
Actions to be taken:	Submit records as required.

Compliance History:

This Facility was subject to Pollution Abatement Order 108387 and had four previous inspections:

- 2019-Aug-13 IR113780 Notice of Compliance
- 2018-Feb-13 IR74458 Advisory: failure to conduct all groundwater monitoring
- 2017-09-28 IR66637 Notice of Compliance
- 2017-Mar-13 IR48787 Investigation Referral: failure to submit an action plan

The Ministry of Environment Compliance and Enforcement Policy and Procedure (C&E Policy) prescribes common requirements and procedures for all Ministry staff to ensure consistent and risk-based assessment and response to non-compliance. Using the Non-Compliance Decision Matrix, the compliance determination for this inspection has been assessed as Level 1, Category A, Advisory.

More information about Environmental Compliance, the Non-Compliance Decision Matrix, and reporting and data submission requirements can be found at the links below:

General compliance information:

www.gov.bc.ca/environmentalcompliance

Non-Compliance Decision Matrix information:

www.gov.bc.ca/environment/how-compliance-is-assessed

Reporting and data submission requirements (to be sent to EnvAuthorizationsReporting@gov.bc.ca):

<https://www2.gov.bc.ca/gov/content/environment/waste-management/waste-discharge-authorization/comply>

Please be advised that this inspection report may be published on the provincial government website after 7 days from the date of issue.

If you have any questions about this letter, please contact the undersigned.

Yours truly,

Jurgen Deagle
Environmental Protection Officer

cc:

Attachments:

Deliver via:

Email: Fax: Mail:

Registered Mail: Hand Delivery:

**Ministry of Environment
and Climate Change
Strategy**

Compliance and
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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 the 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.

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.