

Report to the Farmer's Advocate Office

Date: November 13, 2018

Attention: Practice Review Committee Members

Re: Nelson Family Ranches Ltd.

A Practice Review Committee (PRC) hearing was held by the Farmer's Advocate Office (FAO) on November 23, 2017. Hearing panel members were to consider the evidence and the submissions presented by parties at the hearing to establish if the dust control measures taken at the feedlot constitute "generally accepted practice".

Following the PRC hearing, the panel issued a recommendation that:

- *"The NRCB continue its communication in monitoring the Nelson Family Ranches Ltd., and

 - i. Adequately monitor and ensure compliance by Nelson Family Ranches Ltd. of the records it is required to keep as per the 2017 Dust Control Plan: a) record of pen watering activity (which pens are watered and frequency), and b) record of when the pens are scraped.
 - ii. Continue to conduct regular inspections of the Nelson Feedlot and the Hofer property in the evenings when cattle are milling around, kicking up dust, and on windy days."*

Further, the PRC panel recommendation required that:

- *"No later than November 15, 2018, the NRCB provide the FAO with a report outlining what Nelson Family Ranches Ltd. has implemented regarding the 2017 Dust Control Plan."*

The purpose of this report is to provide the following information that was requested by the PRC panel in its recommendation.

1. Nelson Family Ranches Ltd. compliance with the NRCB 2017 Dust Control Plan (Attachment A).
2. NRCB continued communication in monitoring Nelson Family Ranches Ltd.
3. Summary of changes made to the dust control system at the Nelson Family Ranches feedlot in the past year.

1. Nelson Family Ranches Ltd. compliance with the 2017 Dust Control Plan

A. Pen Watering Record Keeping Requirement in the Dust Control Plan:

"The existing pen watering system (permanent systems, portable hoses/end guns, and water trucks) should continue to be used to control dust. A record of pen watering activity (which pens are watered, frequency) should be kept and made available to NRCB staff upon request."

NRCB Update:

- In 2018, the Nelson feedlot continued regular use of their pen watering system to control dust.
- Pen watering records were kept and made available to the NRCB upon request. The last record obtained from the feedlot on October 4, 2018 is attached (Attachment B)

B. Pen Watering System Installation Requirement in the Dust Control Plan:

"The proposed permanent pen watering system in pens 15-26 must be installed by July 21, 2017."

- i. "Dates when the system is used should be recorded."*
- ii. "An assessment on the performance of the new system must be provided to the NRCB by June 1, 2018."*

NRCB Update:

- o The watering system in pens 15-26 was upgraded to a permanent system in the summer of 2017. The permanent system consists of underground water lines and fixed sprinkler guns.
- o The NRCB received pen watering records for 2017 from the Nelson feedlot in May 2018
- o An assessment of the performance of the new pen watering system was received from the Nelson feedlot on May 31, 2018. Key points from the assessment include:
 - Water lines were trenched into pens to mount a fixed sprinkler gun in pens
 - One sprinkler gun is capable of watering two pens.
 - Nelson indicated that the upgraded watering system was successful in controlling most of the dust from the pens.
 - Draining water from the sprinkling system underground lines before winter was challenging. The system needed to be "blown out" using compressed air which was difficult with so many lines.
 - Due to moisture buildup in the watering system valves, some froze and cracked over the winter.
 - Additional upgrades to the feedlot pen watering system are planned for spring/summer of 2018.

C. Pen Scraping and Record Keeping Requirement in the Dust Control Plan:

"Feedlot pens must continue to be scraped on a regular basis to reduce dust sources. A record of when the pens are scraped must be kept and provided to NRCB staff upon request."

NRCB Update:

- o Manure was scraped from feedlot pens in the spring, summer and fall using either a high-hoe or box scraper
- o Pen scraping records were kept by Nelson feedlot and made available to the NRCB upon request. The last record obtained from the feedlot on November 1, 2018 is attached (Attachment C)

2. NRCB Continued Communication in Monitoring Nelson Family Ranches Ltd.

A. Requirement in Recommendation from the PRC Panel:

"Adequately monitor and ensure compliance by Nelson Family Ranches Ltd. of the records it is required to keep as per the 2017 Dust Control Plan: a) record of pen watering activity (which pens are watered and frequency), and b) record of when pens are scraped."

NRCB Update:

- o Pen watering records were kept by Nelson feedlot and made available to the NRCB upon request. The last record obtained from the feedlot on October 4, 2018 is attached (Attachment B)

- Pen scraping records were kept by the Nelson feedlot and made available to the NRCB upon request. The last record obtained from feedlot on November 1, 2018 is attached (Attachment C)

B. Requirement in Recommendation from the PRC Panel:

"Continue to conduct regular inspections of the Nelson Feedlot and the Hofer property in the evenings when cattle are milling around, kicking up dust, and on windy days."

NRCB Update:

- In 2018 (up to October 31), the NRCB conducted 24 site inspections at Nelson Family Ranches Ltd and the Hofer family property. Twenty-one of those inspections took place during the typically hotter/drier months of May to September (eleven of the inspections were conducted in the evening). During each inspection, dust conditions at the feedlot and Hofer property were observed, documented, and photos were taken.

C. Requirement in Recommendation from the PRC Panel:

"Must provide an evaluation of the new pen watering system in pens 15-26, which includes an assessment of the effectiveness of the equipment, best operating practices and maintenance requirements to the NRCB no later than October 15, 2018"

NRCB Update:

- The NRCB received an update from Nelson Family Ranches Ltd. on October 16, 2018 summarizing their progress in meeting the requirements of the 2017 dust control plan. Key points from the assessment include:
 - Intended upgrades of the pen watering system were almost complete. Nelson plans to complete the upgrade in the spring of 2019. Delays in upgrading the pen watering system were due to the time required to install roller compacted concrete (RCC) in some pens.
 - Nelson feedlot found that they could water 7-8 pens at one time, and the entire feedlot in a 2-3 hour period
 - The Nelsons indicated that they invested tens of thousands of dollars in upgrading and operating their pen watering system this year.
 - Nelson feedlot will continue to monitor, evolve and adapt their feedlot dust control management.

3. Summary of changes made to the dust control system at the Nelson Family Feedlot in the past year.

In 2018 Nelson Family Ranches Ltd. continued to upgrade their pen watering system by installing more permanently mounted sprinkler guns. A summary of improvements made to the Nelson Family Ranches Ltd. pen watering system in 2017/18 is provided in Attachment D. As of November 1, 2018, 37 of the 51 (72.5%) feedlot pens can be watered using a permanent system which consists of underground water lines and fixed sprinklers. The remainder of the pens continue to be watered using a facility water truck.

Prior to the implementation of the 2017 Dust Control Plan, Nelson's pen watering system was very labor intensive as it required manually moving hoses and sprinkler guns to different pens throughout the feedlot as needed. According to the Nelsons, it took approximately 2 days to water all the feedlot pens. The 2017 Dust Control Plan required 12 pens to be upgraded; Nelsons have exceeded this requirement by upgrading their pen watering system on an additional 23 pens. They can now water all of their feedlot pens in 2-3 hours.

In addition to the upgrades of the pen watering system, Nelson Family Ranches Ltd also re-lined 18 of their feedlot pens with RCC (the entire pen liner was replaced with RCC in five of the pens and partially replaced in another thirteen pens). The Nelson's believe there are dust control benefits to lining the pens with RCC. The following excerpt was taken from the Nelson's update to the NRCB, dated October 16, 2018.

"We decided to do about 1/3 of our pens to RCC. This will have many benefits. The main one being that we won't have to haul dirt and build pens back up. Other very important benefits are we will use less water to water pens, dust scraping and easy manure loading. All of which will reduce our dust impact. With less manure spread throughout the pen our sprinklers will do a better job in wetting them down. We are really excited for our new RCC pens."

Conclusion

It is the NRCB's view that Nelson Family Ranches met the requirements of the 2017 Dust Control Plan and have made significant improvements to their dust control system. Notable improvements include better pen watering and pen scraping record keeping, and enhancements to the pen watering system. The feedlot also installed RCC in some pens to help reduce dust levels. Despite the improvements to the Nelson dust control system, it is the NRCB's view that dealing with dust issues will continue to be challenging due to the apparent increase in hot and dry weather during the spring/summer months, and proximity of the Hofer family property to both the Nelson and another nearby feedlot (Attachment E).

The NRCB will continue to monitor performance of the dust control system at the feedlot in accordance with its mandate under Part 2 of AOPA. Of particular interest to the NRCB will be future upgrades to the pens that do not yet have a permanent watering system, as well as assessing the effectiveness of RCC liners in reducing dust conditions. The NRCB is also in the process of modifying the dust control condition in the permit for Nelson Family Ranches Ltd. The new condition will make it easier for the NRCB to require improvements or modifications to the dust control system.

Finally, as we stated throughout the PRC review process, the NRCB believes that follow-up discussions between your office and the NRCB may assist future PRC reviews in conducting their reviews under Part 1 of AOPA (PRC), while respecting the legislative mandate of the NRCB under Part 2 of AOPA.

Attachments

- A. NRCB 2017 Dust Control Plan for Nelson Feedlot
- B. Nelson Family Ranches 2018 Pen Watering Records
- C. Nelson Family Ranches 2018 Pen Scraping Records
- D. Summary of Nelson Feedlot Pen Watering System
- E. Proximity of Hofer Residence to Feedlots



Bill Kennedy

General Counsel

Natural Resources Conservation Board

cc: Walter Ceroici, NRCB – Acting CEO
Kevin Seward, NRCB – Acting Compliance Manager
Denny Puszkar, NRCB – Inspector
Nelson Family Ranches Ltd.
Philip North, Q.C., North and Company (attachments B, C and D omitted)



July 18, 2017

Nelson Family Ranches Ltd.
Box 128
Stirling, AB T0K 2E0

SUBJECT: Nelson Family Farms Dust Control Plan for Feedlot Located at NE7-6-19-W4M

The Nelson Family Ranches operation located at NE 7-6-19-W4M existed as a feedlot before January 1, 2002 (a site plan of the feedlot showing pen locations is attached) and was permitted by the County of Warner (Development Permit 93-32). The County of Warner permit contains a condition requiring that a "dust control program within the feedlot will be implemented". The Natural Resources Conservation Board (NRCB) considers the county permit to be a "deemed permit" under section 18.1(1) of the *Agricultural Operation Practices Act (AOPA)*.

Under AOPA, confined feeding operations (CFOs) must comply with their deemed or NRCB-issued permits, and CFOs are also subject to requirements of the Standards and Administration Regulation relating to CFO's ongoing operation. Section 20(2) of that regulation states that NRCB "may require" the owner or operator of a CFO or manure storage facility, to "use a specific dust ... control program at a location occupied by the operation, facility or site".

This letter details NRCB requirements for improving the dust control system at Nelson Family Ranches.

Nelson Family Ranches Current Dust Control System

Nelson Family Ranches has the ability to water all of its feedlot pens. The current dust control system consists of:

- A permanent water system at pens 1-2 (see attached). The permanent system consists of underground lines and a permanently mounted end gun.
- A movable pen watering system consisting of about fifteen hoses (2" and 3") and six end guns (two 300 ft. end guns, and four 200 ft. end guns) is used to water pens 15-26 and 27-47 (see attached).
- A water truck is used to water pens that do not have a permanent or portable watering system (pen 3, pens 4-8, 9-12, 13-14 and 48-49 [see attached]), the feedlot access road and feedlot alleyways.
- The majority of pens 50-51 are watered by a pivot located in an adjacent field to the south of the feedlot.

It takes about 2 days for Nelson Family Ranches to water the entire feedlot using the current permanent and portable pen watering systems.

The primary source of water for the dust control system is from a nearby irrigation canal. Irrigation water is typically available from May 15 to October 15. Water from the feedlot freshwater dugout is not used for watering pens since the water is needed as a water supply for

cattle. Nelson Family Ranches contends that watering pens in the October 15 to May 15 period is hard on equipment due to potential freezing conditions.

The trigger used by Nelson Ranches to determine when to activate their dust control system has been the presence of "powdery" material in the pens (typically occurs after several consecutive 30° C [or higher] days) which can become airborne. Staff inspect pens daily to determine pen watering requirements. Nelson has not been recording when the pens are watered.

According to Nelson, a high hoe is used to scrape the pens to reduce potential dust sources. No record is kept on pen scraping frequency.

The feedlot access road and feedlot alleyways are watered as required using a water truck to control dust, particularly during high traffic periods in the May to October period.

Dust Control System Improvements

Nelson Family Ranches has committed to improving the efficiency of dust control system at their feedlot. A permanent pen watering system similar to the one installed in pens 1-2 is planned for pens 15-26. The performance of the new pen watering system in the pens 15-26 will be evaluated by Nelson Ranches over the next year to assess the effectiveness of the equipment, best operating practices, and maintenance requirements. Nelson Family Ranches has indicated to the NRCB that the new pen watering system may be expanded to other pens in the feedlot if it is proven to be effective.

NRCB Requirements:

- The existing pen watering system (permanent systems, portable hoses/end guns, and water trucks) should continue to be used to control dust. A record of pen watering activity (which pens are watered, frequency) should be kept and made available to NRCB staff upon request.
- The proposed permanent pen watering system in pens 15-26 must be installed by July 21, 2017.
 - Dates when the system is used should be recorded.
 - An assessment on the performance of the new system must be provided to the NRCB by June 1, 2018.
- Feedlot pens must continue to be scraped on a regular basis to reduce dust sources. A record of when the pens are scraped must be kept and provided to NRCB staff upon request.

If Nelson Family Ranches does not comply with the above NRCB requirements, further remedial steps may be required.

Yours truly,



Denny Puszkar
NRCB Inspector

Encl.

Nelson Feedlot Plan Showing Pen Locations



Hofer Residences

anches Ltd.

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