



BOARD DECISION

RFR 2011-07 / LA11009

In Consideration of Requests for Board Review filed under the *Agricultural Operation Practices Act* in relation to Decision Summary LA11009.

Dirk Muilwijk

August 24, 2011

Background

On July 8, 2011, NRCB Approval Officer Karen Stewart issued Decision Summary and Approval LA11009 to Dirk Muilwijk. The decision approved Dirk Muilwijk's application to add 1600 beef feeder calves to a confined feeding operation (CFO) currently operating primarily as a swine farrow to finish operation located at SE 10-009-27 W4M in the Municipal District of Willow Creek.

Pursuant to Section 20(5) of the *Agricultural Operation Practices Act (AOPA)*, Requests for Board Review of the Approval Officer's decision were filed by two parties: Ken and Janet Walker, and Glen and Marthe Carmichael. Both parties were recognized as directly affected parties in Decision Summary LA11009 and each request was filed by the 10-day filing deadline established by *AOPA*.

All directly affected parties named in Decision Summary LA11009 were provided with a copy of the Requests for Board Review and a July 20, 2011 letter submitted by Alberta Health Services, along with notice of their opportunity to file a response by August 10, 2011. Subsequently the Board received a response from Mike Wenig on behalf of the Approval Officer, filed on August 10, 2011. The Board convened to deliberate on this matter on August 16, 2011.

Jurisdiction

The Board's authority for considering a request to review an Approval Officer's decision is found in Section 25(1) of *AOPA*, which states:

25(1) The Board must, within 10 working days of receiving an application under section 20(5), 22(4) or 23(3) and within 10 working days of the Board's determination under section 20(8) that a person or organization is a directly affected party,

- (a) dismiss the application for review, if in the opinion of the Board, the issues raised in the application for review were adequately dealt with by the approval officer or the issues raised are of little merit, or*
- (b) schedule a review.*

The Board considers that a party requesting a board review has the onus of demonstrating that there are sufficient grounds to merit review of the Approval Officer's decision. Section 14 of the *Board Administrative Procedures Regulation* describes the information that must be included in each Request for Board Review.

Documents Considered

The Board considered the following information in arriving at its decision:

- Decision Summary and Approval LA11009, dated July 8, 2011;
- Request for Board Review filed by Ken and Janet Walker, dated July 29, 2011;
- Request for Board Review filed by Glen and Marthe Carmichael, dated July 29, 2011;
- Letter from Alberta Health Services, dated July 20, 2011;
- Documents the Board obtained from the Approval Officer's public records, namely:

- Correspondence between Alberta Health Services and the Approval Officer (April 20, 2011 letter from the Approval Officer and Alberta Health Services' responses dated May 4, 2011 and May 6, 2011 plus attachments);
- Risk Screening Assessment, dated June 3, 2011;
- Soil Test Results (including related correspondence between the Approval Officer and the Applicant); and,
- Response to the Requests for Board Review filed by Mike Wenig on behalf of the Approval Officer, dated August 10, 2011.

Board Deliberations

The Board met on August 16, 2011 to consider the Requests for Board Review. In its deliberations, the Board observed that a variety of issues were raised regarding Decision Summary and Approval LA11009. As previously noted in this report, when considering a Request for Board Review, the Board is directed by Section 25(1) of AOPA to “(a) *dismiss the application for review, if in the opinion of the Board, the issues raised in the application for review were adequately dealt with by the approval officer or the issues raised are of little merit, or (b) schedule a review.*” The Board’s observations and conclusions regarding the issues parties advanced for Board review are provided below.

In their Request for Board Review the Walkers expressed concerns that the CFO application was deficient in addressing water quality issues; they also indicated that the existing facilities (pens/barns) were lacking with respect to required pen space, and expressed concern for nuisances caused by improper disposal of dead animals, odours, and increased truck traffic. Similarly, the Carmichaels expressed concern regarding protection of water quality, adequacy of the existing facilities for the proposed number of calves, improper disposal of carcasses, and odour impacts on neighbours. The Board observes that both parties asked the Board to amend or vary Decision Summary LA11009 to include a requirement for continuous percolation monitoring.

In addition to these requests, the Board received a letter from Alberta Health Services (AHS), a referral agency that provided input for the Approval Officer’s consideration with respect to Application LA11009. In its letter to the NRCB, AHS indicated that it did not support the application, expressing concern for the presence of a shallow aquifer with elevated nitrates existing at lands designated for additional manure spreading.

Water Quality and Manure Management

The Board understands that the water quality concerns raised by the Carmichaels and Walkers relate to the CFO site and proposed spreading lands and potential contamination of their wells, given the soils (sands and gravels) overlying the aquifer. AHS similarly expressed its concern, noting that lands identified for manure spreading lie over an aquifer shown to be high in nitrates. In its submission to the Board, AHS stated that, “*Although we have no data to suggest the source of this contamination, the size and scope of the existing problem would lead us to the conclusion that agricultural practices in the area would be a probable source of this contamination and not residential septic fields, or unique geology.*” AHS stated that additional manure loading on these lands could exacerbate the problem of elevated nitrates in the groundwater supplies, thereby increasing the risk of a public nuisance. Given its concerns, AHS suggested that the Board amend the approval to disallow increased manure application on lands above the contaminated aquifer until the cause of the existing contamination could be discovered.

In assessing whether the Approval Officer adequately addressed this issue, the Board carefully reviewed the information provided by AHS. In its initial correspondence with the Approval Officer (May 4, 2011 letter), AHS referenced a shallow aquifer in the vicinity of the CFO that appeared to have elevated nitrate levels “*possibly 3X the Maximum Acceptable Level outlined in the Guidelines for Canadian Drinking Water Quality.*” AHS asserted that nitrate contamination is usually related to improper manure application and encouraged use of a percolation monitoring program; AHS also stated that it did not support the expansion until an “*alternate manure disposal site/method is found.*” The Board notes that the Approval Officer considered this input and included these comments in Decision Summary LA11009.

AHS also copied the Approval Officer with correspondence (May 6, 2011) giving notice to a local landowner whose well data indicated elevated nitrate levels at SW-33-7-26-4. The Board observes that the April 27, 2011 well data taken from SW-33-7-26-4 showed a nitrate level of 12.7 mg/L while, according to the report, the Canadian Drinking Water guideline lists 10 mg/L as the Maximum Acceptable Concentration. The Board acknowledges that these lands are identified as spreading lands in Decision Summary LA11009.

From a procedural standpoint, AHS’ correspondence raised a novel question for the Board, namely how referral agency input should be taken into account with respect to an Approval Officer’s considerations of an application for a CFO. While AHS is not recognized as a directly affected party under *AOPA* and therefore cannot trigger a Board review, according to the NRCB’s Approval Policy, Approval Officers may seek input from referral agencies regarding completed applications and statements of concern. In this case, the Board observes that upon being alerted to AHS’ concerns, the Approval Officer delved further into the issue by requesting and reviewing soil testing data to ascertain the nitrate levels for two of the quarters designated as manure spreading lands. As indicated in Decision Summary LA11009, the submitted soil testing records demonstrated that the nitrate nitrogen and salinity levels for these proposed spreading lands were below the prescribed regulatory limits and that crop production would require additional nitrogen. The Board recognizes that this information is not typically required as part of the application process, and believes this approach demonstrated the Approval Officer took AHS’ concerns seriously.

The Approval Officer also performed a risk assessment of the CFO’s existing facilities on June 3, 2011. On Page 7 of Decision Summary LA11009 the Approval Officer reported that the assessment was conducted using the *Environmental Risk Screening Tool for Manure Facilities at Confined Feeding Operations*, noting the assessment was used to evaluate potential hazards and pathways for contamination. In conducting the assessment, the Approval Officer used data from “*water well logs, air photos, soil and water information and surficial geology.*”

In support of their position that percolation monitoring was required for the CFO, the Walkers provided information indicating that the watershed area near the CFO was shown to be ‘high risk’ according to two submitted maps: “*Ground Water Quality Risk for the Agricultural Area of Alberta*” and “*Aquifer Vulnerability Index for the Agricultural Area of Alberta*” (both maps produced jointly by Alberta Agriculture Food and Rural Development and Agriculture and Agri-Food Canada). The Carmichaels and AHS also suggested that percolation monitoring was appropriate for this CFO. The Board observes that the Approval Officer’s risk assessment of the existing facilities (barns, earthen liquid manure storages and feedlot pens) determined that the risk to groundwater and surface water was low, and therefore a program for percolation monitoring was not required. While the maps provided by the Walkers suggest heightened aquifer vulnerability and risk to groundwater in the area of the CFO, the Board accepts the NRCB’s Risk Screening Tool to be more persuasive in assessing site-specific information relating to the risk to groundwater at the subject CFO site.

In assessing distances to water wells, on page 6 of Decision Summary LA11009 the Approval Officer indicated a well located within 100 m of an existing feedlot pen (situated “*upslope from all manure collection areas and manure storage facilities*”), and therefore added a condition requiring annual drinking water quality tests for chlorides and nitrates, with the results to be submitted to the NRCB annually unless otherwise directed.

Following deliberation, the Board concludes that the issues regarding water quality protection and manure management were adequately addressed by the Approval Officer. In reaching this conclusion, the Board has taken into account the additional soil sampling data, the results of the Approval Officer’s site-specific risk assessment determining a low risk at the existing CFO site, and the lack of data regarding any point source for the aquifer’s elevated nitrates. The Board also notes that the 5 parcels of land identified for manure spreading provide almost double the required land base. The Board observes that in its May 4, 2011 letter, AHS referenced more than 20 sections of land (Sections 15-36) overlying the shallow aquifer showing elevated nitrates in an area also allocated for manure spreading. However, the Board does not find it reasonable to prohibit manure application absent any factual information or data to suggest manure spreading is the point source for the elevated nitrates in the aquifer, especially in light of the fact that the data provided in the soil tests concluded that designated spreading lands were lacking in nitrates.

The Board recognizes *AOPA*’s measures to protect the soil, surface water and groundwater from the over-application of manure. These measures include requirements for soil testing, limits for nitrate-nitrogen and soil salinity, and setbacks from waterbodies, water wells and neighbouring residences. Manure spreading and soil sampling records must also be maintained by CFO Operators and made available to NRCB Inspectors upon request to determine compliance with the regulations. Relevant to parties’ concerns in this case, the *Standards and Administration Regulation* establishes the requirements for nutrient management (s. 23), manure application limits (s. 24), soil protection (s. 25) and record keeping responsibilities (s. 28, Part 2 General Administration Matters). *Schedule 3* establishes soil testing and sampling requirements, identifies information needed for the soil analysis records, and specifies limits for nitrate-nitrogen levels in the top 60 cm of the soil profile.

Given the Approval Officer’s assessment of the CFO application, along with the conditioned annual water well testing and the Board’s recognition of regulatory requirements applicable to manure application, the Board accepts that the Approval Officer adequately addressed issues relating to water quality protection and manure management. The Board therefore finds that these matters do not warrant Board review.

Existing Facilities

Both review requests indicated that the existing CFO facilities were lacking, stating that the pen space was inadequate for the proposed number of calves. In Decision Summary LA11009, the Approval Officer stated, “*The applicant plans to house the smaller calves in individual calf hutches, which will be moved on a regular basis...*” and therefore recognized the hutches as short term manure storage facilities. On page 6 of Decision Summary LA11009, the Approval Officer indicated that “*Section 5 of the Standards and Administration Regulation of AOPA states that short term manure storage can be used with solid manure if it is not stored in one particular location for more than 7 months in any 3 years.*”

In response to the Requests for Review, the Approval Officer provided clarification that, “*When moved, the hutches can be re-located to any unoccupied portion of the entire quarter section.*”

However, to be clear, these hutches will not be located within the feedlot pens, so the pens' size is not a limiting factor." The Board finds that the Approval Officer adequately addressed this issue in relation to the NRCB's jurisdiction for confirming adequacy of manure storage.

Odours

Both Requests for Review advanced concerns regarding odours from the CFO. The Board is satisfied that this issue was adequately considered by the Approval Officer, specifically through examining whether the operation met the requirement in the *Standards and Administration Regulation* for minimum distance separation (MDS).

In Decision Summary LA11009, the Approval Officer noted that manure storage facilities create potential sources of nuisance, but stated that if the storage met AOPA's MDS requirement, *"...the level of nuisance created is judged to be acceptable, because the MDS requirement is a means of mitigating the nuisance impact of CFOs on neighbouring residential land uses."*

While AOPA includes measures to mitigate nuisance impacts like odours, the Board agrees that some odours can be expected to occur and the level of nuisance is generally deemed to be acceptable when a CFO meets the MDS and adheres to appropriate manure management practices. In this case, the Board accepts that the required MDS was met and finds this issue does not warrant review.

Disposal of dead livestock

Parties expressed concerns regarding improper disposal of dead animals, identifying this matter as contributing to odours and predator problems. The Board notes that all livestock owners are expected to abide by Alberta Agriculture and Rural Development's (ARD) regulations regarding the disposal of dead livestock (under the *Destruction and Disposal of Dead Animals Regulation*). In this regard, the Board observes that the Approval Officer addressed this issue on page 9 of Decision Summary LA11009, advising of ARD's jurisdiction for regulating the disposal of dead animals. The Board finds this matter does not warrant review.

Truck Traffic

The Walkers raised a concern about increased truck traffic relating to the CFO, thus increasing road repairs for the municipality and ratepayers. As the issue was not mentioned in Decision Summary LA11009, it does not appear to have been raised previously for the Approval Officer's consideration. Nevertheless, the Board notes that road use is a municipal issue and observes the municipality did not express any concerns in this regard. The Board does not find this issue merits Board review.

Decision

As a result of its deliberations, the Board concluded that the Approval Officer adequately addressed the issues raised and therefore determined a review is not warranted. Accordingly, the Requests for Board Review are denied.

DATED at CALGARY, ALBERTA, this 24th day of August, 2011.

Original signed by:

Vern Hartwell
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Copies of the *Agricultural Operation Practices Act* can be obtained from the Queen's Printer at www.qp.gov.ab.ca or through the NRCB website.