

Regarding Approval LA022019  
NE 19-26-25 W4M

## **Leakage detection system monitoring for the earthen liquid hog manure storage (hog EMS)**

The purpose of this statement is to revise the groundwater monitoring requirements in Approval LA22019. Condition #10 of Approval LA22019 reads:

10. "The permit holder shall conduct leak detection groundwater monitoring for the hog earthen liquid manure storage according to a leak detection groundwater monitoring system prescribed and authorized in writing, and as amended from time to time where appropriate, by the NRCB."

The NRCB has re-assessed the groundwater monitoring requirements, using results from an environmental risk screening conducted on May 24, 2022 for the hog EMS.

Based on the risk screening result, the NRCB has determined that the groundwater monitoring requirements for this facility should be as follows:

### **Monitoring Frequency**

Annual testing in October by a qualified third party.

### **Monitoring Well Test Parameters**

Groundwater samples from the monitoring wells are to be tested for the Indicator samples identified in the NRCB Technical Guideline TG2004-01: Leak Detection at CFO's

### **Monitoring Wells to be used for Monitoring**

The four monitoring wells around the hog EMS must be monitored.

The groundwater monitoring results must be forwarded to the Lethbridge NRCB office by November 30 of each year.

The results of the risk screening exercise indicate that this facility has a high potential to impact the uppermost groundwater resource. The hog EMS liner construction method, the liner thickness and the liner hydraulic conductivity are all unknown. Also, the results of previous monitoring events have shown elevated parameters. Continued monitoring of this facility is needed to assess the on-going effect of this manure storage on shallow groundwater.

Note that the installation of new water wells in the area surrounding the CFO may impact the potential risk to groundwater quality at a facility and therefore may require monitoring requirements to be revised. To ensure that monitoring requirements are appropriate, CFO operators should inform the NRCB of any new water wells that are being developed or installed in the area surrounding their facility.

The integrity of all monitoring wells must be maintained. Any damaged or destroyed wells must be reported to the NRCB and may be required to be repaired or replaced.

These monitoring requirements become effective on the date of this letter and supersede any previously issued monitoring requirements at this facility.

Date: June 3, 2022

Signed:

(original signed)  
Carina Weisbach  
Approval Officer