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Manure Release Response Policy

Operational Policy 2021-1

Agricultural Operation Practices Act

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1.0 Background and objectives

This policy describes the process used by Natural Resources Conservation Board (NRCB) inspectors to ensure manure releases are dealt with in a consistent, effective, and transparent manner. Manure (including catch basin contents) releases include spills, overflows, or manure runoff from spreading fields. Though uncommon, manure releases may occur into water bodies as well as onto an adjacent parcel of land (herein a parcel of land is referred to as property). While the process described in this policy should be followed in most instances, inspectors have discretion to modify their response where necessary and as appropriate. In all instances, the compliance manager who may provide further assistance and direction will be notified.

Confined feeding operation (CFO) and seasonal feeding and bedding site (SFBS) owners and operators are required to report all manure releases to the NRCB's 24-hour reporting line (1-866-383-6722). CFO owners and operators are also encouraged to monitor liquid levels in their manure collection and storage facilities, as well as maintain a freeboard of not less than 0.5 metres to help prevent releases from occurring. In addition, the NRCB encourages CFO owners and operators to be proactive and have a plan in place for potential manure releases from all manure storage facilities. This includes having an accessible Emergency Manure Spill Action Plan and having an emergency spill kit available. Additional information on manure spill prevention and response, including an Emergency Manure Spill Action Plan template, is available at www.alberta.ca/manure-spill-prevention-and-response.aspx.

The risk to the environment associated with a release incident will dictate the steps that need to be followed. The primary objective of this policy is to:

1. Stop the release.
2. Contain the release.
3. Clean up the release.
4. Document the release.

2.0 Definitions

The definitions below were obtained from Section 1 of the *Agricultural Operation Practices Act* (AOPA) or Section 1 of the Standards and Administration Regulation.

1. **Manure** is defined by AOPA as livestock excreta, associated feed losses, bedding, litter, soil, and wash water. It does not include manure to which the *Fertilizers Act* (Canada) applies.
2. **Manure collection area** means the floor of a barn, the under-floor pits of a barn, the floor of a feedlot pen, and a catch basin where manure collects, but does not include the floor of a livestock corral.
3. **Manure storage facility** means a facility for the storage of manure, composting material and compost, and a facility for composting, but does not include such a facility at an equestrian stable, an auction market, a race track, or exhibitions grounds.
4. **Common body of water** means the bed and shore of an irrigation canal, drainage canal, reservoir, river, stream, creek, lake, marsh, slough, or another exposed body of water, but does not include:
 - a. a reservoir, lake, marsh, or slough that is completely surrounded by private land controlled by the owner or operator and has no outflow going directly beyond the private land to a drainage canal, reservoir, river, permanent stream or creek, lake, or potable water source that is being used for human or livestock consumption,

- b. an irrigation canal or drainage canal that is completely surrounded by private land controlled by the owner or operator and has no outflow going directly beyond the private land,
 - c. a roadside ditch,
 - d. a wastewater system as defined in the *Environmental Protection and Enhancement Act*,
 - e. a storm drainage system as defined in the *Environmental Protection and Enhancement Act*, and,
 - f. a temporary stream on private land controlled by the owner or operator that has no outflow going beyond the private land directly to a drainage canal, reservoir, river, permanent stream or creek, lake, or potable water source that is being used for human or livestock consumption.
5. **Catch basin contents** means the runoff from a CFO or manure storage facility that is captured in a catch basin.

3.0 Types of releases

The vast majority of manure release events that NRCB inspectors respond to fall into the following three categories:

1. releases that are contained on the property owned or utilized by the CFO.
2. releases that are not contained on the property owned or utilized by the CFO (but not entering a common body of water).
3. releases that may impact a common body of water.

Some manure releases can be the direct result of an extreme weather event, such as a rapid spring snow melt or excessive one-day or multiple-day rainfall events. These can affect manure storage or collection facilities, or spreading lands which recently received manure. The NRCB inspector will follow the steps outlined in this section for these types of events, as required.

The categories identified below apply to CFO operators, SFBS operators, and/or individuals who manage manure.

3.1 Releases that are contained on the property owned or utilized by the CFO

A typical on-site release from a manure collection or storage facility includes an overflow from an earthen manure storage (EMS), slurry storage, catch basin, or manure distribution system that has failed. In this type of release, no manure leaves the property; it is contained on-site by either the natural lay of the land or by an action taken by the operator.

The NRCB inspector is required to:

1. Notify the compliance manager as required.
2. Take photographs of the site and impacted area.
3. Observe and document the extent of the manure release.
4. Note the location of any water wells that may be impacted.
5. Work with the operator to develop a plan to ensure no manure leaves the property.
6. Refer to any applicable permit conditions regarding manure management.
7. Document all actions taken and personnel contacted.

8. Ensure all actions and photographs of the situation are fully documented in the NRCB's CFO database.

This type of release is typically associated with a lower level of environmental risk. The level of risk to the environment will dictate what, if any, further actions are required.

Examples of additional actions that could be taken include:

1. Berming of the area to prevent further migration of the release (this could include berms constructed using soil or bales).
2. Removing excess manure (e.g., by using a vacuum truck or by scraping and relocating the manure).
3. Incorporating the manure into the soil.

3.2 Releases that are not contained on the property owned or utilized by the CFO (but not entering a common body of water)

These releases typically involve liquid manure (but can also involve solid manure) that leaves the operator's property. The need to ensure the release is stopped, contained, and cleaned up is important in this situation. An NRCB inspector may conduct an environmental risk screening to assist in deciding the type of remedial work required.

The NRCB inspector is required to:

Notify the following agencies and/or parties (if appropriate)

1. Compliance manager
2. Alberta Environment and Parks
 - In the event of manure release that may affect any domestic water sources (water wells, springs).
3. Alberta Health Services (local health inspector)
 - In the event of manure release that has the potential to impact or contaminate any domestic water sources (water wells, springs).
4. Local municipality
 - In the event of manure release that impacts a municipal ditch or roadway.
5. Irrigation district
 - In the event of a manure release that impacts an irrigation canal or drainage ditch.
6. Alberta Transportation
 - In the event of manure release that impacts a provincial highway ditch or roadway.

Document the release

7. Observe and document the extent of the manure release.
8. Document all actions taken and personnel contacted.
 - Ensure all actions are fully documented in the NRCB CFO database.
 - Obtain photographs of the release, release impacts, manure storage and mitigation measures.

The CFO owner or operator is required to:

Control the release

1. Stop the manure release at the source.
 - Prevent the release from continuing and further releases from occurring by installing physical barriers such as berms.
2. Stop manure land application or pumping.
3. If needed, transfer liquid manure to another containment system.

Notify the following agencies and/or parties

4. The CFO owner or operator responsible for the release will be required to notify affected parties as directed by the NRCB. Confirmation must be sent to the NRCB once affected parties are notified by the CFO owner or operator. The affected parties will be determined by the operator in consultation with the NRCB inspector.

Contain and clean up the release

5. Clean/manage manure associated with the release, e.g. use a vacuum truck, incorporate manure (must be in compliance with AOPA permit setbacks and requirements).
6. Prevent manure from leaving the property (e.g., plug culverts with plastic and/or bales, berm the spill area).
7. Assist responding agencies.

Document the release

8. The operator is required to document all actions taken.
 - Take photographs of the release, release impacts, manure storage and mitigation measures taken.
 - Document the time of release and steps taken to control the release.
 - Keep a list of all parties that were notified of the release.

3.3 Releases that may impact a common body of water

These types of manure releases generally pose the greatest risk to the environment. The NRCB reporting line operator may contact the Alberta Support and Emergency Response Team (ASERT). The NRCB inspector will be advised by the operator if ASERT has been activated.

ASERT has regional response plans for releases that may affect human health or cause serious impacts on the environment.

The NRCB inspector is required to:

Notify the following agencies and/or parties (if appropriate) as soon as possible.

1. Compliance manager
2. Affected parties and landowners located adjacent and/or downstream of the release (if required)
 - The NRCB inspector will use their discretion to determine the notification distance of downstream parties, to the extent reasonable, based on the severity and duration of the event.

3. Alberta Environment and Parks spill response line
4. Environment Canada
5. Department of Fisheries and Oceans
 - In the event of a manure release into a fish-bearing water body
6. Alberta Health Services (local health inspector)
 - AHS may be consulted when determining downstream notification distances and general public notice.
7. Local municipality (including downstream municipalities)
 - In the event of manure release that impacts a municipal ditch or roadway.
8. Irrigation district
 - In the event of a manure release that impacts an irrigation canal or drainage ditch.
9. Alberta Transportation
 - In the event of manure release that impacts a provincial highway ditch or roadway.
10. ASERT (via the NRCB reporting line operator, if not already notified)

Document the release

11. Observe and document the extent of the manure release.
12. Document all actions taken and personnel contacted.
 - Ensure all actions are fully documented in the NRCB CFO database.
 - Obtain photographs of the release, release impacts, manure storage, and mitigation measures.
13. Collect samples of the release material before it enters the common body of water if determined necessary by the inspector or requested by other notified agencies.

The CFO owner or operator is required to:

Control the release

1. Stop the manure release at the source.
 - Prevent the release from continuing and further releases from occurring by installing physical barriers such as berms.
2. Stop manure application or pumping.
3. If needed, transfer liquid manure to another containment system.

Notify the following agencies and/or parties

4. The CFO owner or operator responsible for the release will be required to notify affected parties as directed by the NRCB. Confirmation must be sent to the NRCB once affected parties are notified by the CFO operator. The affected parties will be determined by the operator in consultation with the NRCB inspector.

Contain and clean up the release

5. Clean/manage manure associated with the release, e.g. use a vacuum truck, incorporate manure (must be in compliance with AOPA permit setbacks and requirements).
6. Prevent manure from leaving the property, e.g. plug culverts with plastic and/or bales, berm the spill area, etc.
7. Assist responding agencies.

Document the release

8. The operator is required to document all actions taken.
 - Take photographs of the release, release impacts, manure storage, and mitigation measures taken.
 - Document the time of release and steps taken to control the release.
 - Keep a list of all parties that were notified of the release.

4.0 Contacts

NRCB 24-hour reporting line 1-866-383-6722, Email: info@nrcb.ca, Web Address: www.nrcb.ca

Contact the Natural Resources Conservation Board at the following offices. Dial 310-0000 to be connected toll free.

Edmonton Office

4th Floor, Sterling Place, 9940 - 106 Street
Edmonton, AB T5K 2N2
T 780-422-1977

Calgary Office

19th Floor, 250 - 5 Street S.W.
Calgary, AB T2P 0R4
T 403-297-8269

Lethbridge Office

Agriculture Centre, 100, 5401 - 1 Avenue S
Lethbridge, AB T1J 4V6
T 403-381-5166

Morinville Office

Provincial Building, #201, 10008 - 107 Street
Morinville, AB T8R 1L3
T 780-939-1212

Red Deer Office

Provincial Building, #303, 4920 - 51 Street
Red Deer, AB T4N 6K8
T 403-340-5241

Alberta Environment and Parks 1-800-222-6514

Environment Canada spill line 1-780-499-2432

Alberta Health Services 310-0000 (toll free access within Alberta)

Alberta Transportation 1-800-272-9600