

APPENDIX E

Agricultural Biosecurity Standard Operating Procedures

De Salaberry East Station

Environmental Assessment Report

Agricultural Biosecurity Standard Operating Procedures Transmission Business Unit

1. PURPOSE OF THE PROCEDURE

This Standard Operating Procedure (SOP) provides guidance and direction to individuals who may be required to enter agricultural land and the levels of cleaning necessary to reduce the likelihood of soil and manure transport of invasive organisms (diseases, pests, and invasive species).

2. SCOPE

This SOP describes the risk, techniques, record, and document controls for activities related to transmission construction and maintenance and its associated infrastructure, on agricultural land in Manitoba.

3. APPLICABILITY

This SOP applies to the following:

- Land zoned as agricultural (e.g. pasture, cropland, livestock areas).
- All employees of Manitoba Hydro as well as external individuals such as contractors or consultants who conduct work on behalf of the Transmission Business Unit.
- Additional measures may be prescribed in a project's Environment Act Licence or in the project's Environmental Protection Plan. These measures will be project specific and will not apply to all departments within the Business Unit.
- Additional measures may be implemented for agricultural areas where there is documented evidence of invasive organisms (diseases, pests, and invasive species).

This SOP **does not** apply to the following:

- Government road allowances.
- Gravel or paved driveways or roadways.

4. GENERAL INFORMATION

Agricultural biosecurity is the protection of crops and livestock systems against the threats to production from invasive organisms (diseases, pests, and invasive species). Human activity is one of the factors in the spread of invasive organisms, and the responsibility for agricultural biosecurity rests with all stakeholders.

Agricultural land is land zoned for agricultural use by the provincial government, a municipality, planning commission or planning district.

5. GENERAL CONSIDERATIONS

1. If existing farm level biosecurity measures exist, Transmission staff and contractors will strive to meet the requirements of the agricultural operation when access is required.
2. Activities will try to avoid access through areas that may contain manure.
3. Regular maintenance activities (including patrols) on agricultural lands will typically be scheduled after crops have been harvested and conducted primarily after freeze up.
4. Staff from other Business Units carrying out work for Transmission will be required to follow these procedures during the course of their work.

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6. RESPONSIBILITY

All Transmission staff and contractors who carry out work on agricultural land will:

- Refer to and comply with the requirements of the SOP and the Agricultural Biosecurity Policy.
- If requested, be able to provide a copy of this SOP to the landowner or producer leasing the land.
- Be able to inform a landowner or producer leasing the land about the SOP, if asked.

It is expected that all individuals who require access onto agricultural land and are conducting activities for the Transmission Business Unit, including contractors, will be trained on the Agricultural Biosecurity Policy and this SOP.

Internal Training

A computer based training (CBT) course will be made available for training purposes. All individuals required to undergo training will complete the CBT and will have fulfilled the training requirement.

External Training

The Agricultural Biosecurity Policy and the SOP will be incorporated into the safety and environmental orientation prior to the start of work. Training records will be stored with the individual projects files. Contractors will be required to view the three biosecurity videos available from Corporate Environment as a part of their training.

7. ASSESSMENT OF RISK

The Transmission Business Unit elected to use a risk matrix to identify the potential biosecurity risk. The matrix identified the perceived risk to agricultural land from maintenance and construction activities by taking the frequency a hazard may occur and multiplying it by the consequence or severity of the hazard to determine the level of acceptable risk. The following two levels of risk were identified from the matrix; low risk and higher risk.

Low Risk

During the winter season when the ground is frozen and there is snow cover, it is not anticipated that activities conducted during this time will effectively transfer invasive organisms (diseases, pests, and invasive species) to other agricultural lands and therefore the risk can be considered low. When the ground is dry and undisturbed the risk of transferring these pathogens is minimal, however, avoiding bare ground reduce the risk. Visible inspections will be expected to occur and are described in the biosecurity procedures. The risk can be managed and further minimized by avoiding wet areas and cleaning equipment effectively when leaving the field.

Higher Risk

The higher risk will be located in areas where the ground conditions are very wet and the accumulation of heavy soils such as clay may occur on footwear and in the tracks of vehicles or heavy equipment. It also applies to livestock settings or areas where manure has been spread. There are a number of ways this condition can be mitigated such as avoiding the excessively wet areas, additional cleaning procedures, or rescheduling the work until ground conditions are more favourable.

Although the last method is preferred, it is not always possible because the activity may be dependent upon a

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specific timeline, seasonal changes, or an emergency situation where it is essential to return infrastructure to normal operating conditions.

Additional measures may be implemented when there is documented evidence of invasive organisms (diseases, pests, and invasive species) that are of concern to Manitoba Agriculture, Food and Rural Development.

For the majority of activities conducted within the Transmission Business Unit, the level of risk is anticipated to be low risk. With continual educational awareness and effective implementation of biosecurity procedures, the goal is to further minimize the risk to agricultural lands.

8. PRESCRIBED ACTIONS

Emergency

In emergency situations the Manitoba Hydro Act will prevail in order to return services to normal operating conditions. All efforts will be made to assess the risks to agricultural land and personal safety to determine the most appropriate measures to be taken.

Low Risk

Low Risk Activities are those that are typically completed in frozen conditions, or on dry ground with little soil disturbance.

1. Ensure all equipment and clothing is clean prior to entering onto agricultural land.
2. When leaving the field, check clothing, footwear, and equipment for seeds, soil, or manure and if required, brush off prior to leaving the field. The use of a brush will remove most surface soil, plant material, and foreign matter from clothing and equipment.
3. Fill out the Vehicle and Equipment Cleaning Record and submit with the Biosecurity Checklist.

Higher Risk

This type of risk will involve activities on wet or heavy soils, such as clay, with the potential for large soil accumulations on equipment and footwear. It also applies to livestock settings or in cases where manure is confirmed to have been spread on fields.

1. If possible, schedule activities to occur when ground conditions are more favourable.
2. If activities cannot be rescheduled, ensure that proper care and attention is paid to cleaning equipment and footwear prior to leaving the site.
3. Equipment may require fine cleaning to remove remaining soil. This includes pressure washing to rinse off remaining soil or manure. Initial cleaning (i.e. mechanical brushing) should be done at the field approach, and full pressure washing can be completed off site if the equipment is taken directly to a commercial wash facility. In cases where there is a risk of spreading soil (such as vehicle tires), pressure washing must occur before leaving the site. Disinfecting of the equipment through the use of a disinfectant such as Virkon should be applied to all surfaces that have been in contact with soil.

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4. Use safety footwear that can be easily cleaned. Use a brush to remove visible soil or manure and disinfect or change footwear when leaving the field.
 - Disinfectants such as 1% Virkon may be carried in a household spray bottle or a larger container if required.
 - Any waste solution associated with disinfection is to remain on the field where it was used. It must be disposed of at least ten metres from a drain or drainage ditch.
5. Fill out the Vehicle and Equipment Cleaning Record and submit with the Biosecurity Checklist.

9. PERSONAL PROTECTIVE EQUIPMENT

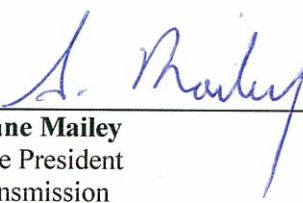
Safety of the individual will always be of the highest importance at Manitoba Hydro. Corporate safe work procedures and protocols are in place to protect not only the individual(s) directly involved in the activity or work, but also as it relates to public safety.

Personal protective equipment (PPE) will be worn as per the manufacturer's specifications and as directed by Manitoba Workplace Health and Safety Regulation 217/2006, Part 6 Workplace Safety and Health Regulations.

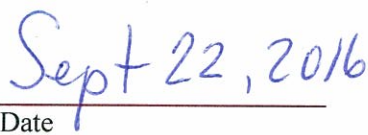
10. CONTACT INFORMATION

If there are any questions or concerns from the public related to biosecurity at Manitoba Hydro, contact the Customer Contact Centre at 1-MB-HYDRO (1-888-624-9376) or via email at environment@hydro.mb.ca.

11. APPROVAL



Shane Mailey
Vice President
Transmission



Date

NOTE: This procedure will be reviewed annually by management. As conditions change or new information becomes available, this document may be revised prior to the annual review date. Printed copies are not controlled, so check with management for the latest version.