

BIOSECURITY PLAN

Enquiries have been made with respect to Manitoba Hydro's practices while on agricultural land in the Province for the purpose of erecting and/or maintaining transmission lines. Manitoba Hydro, in response to agricultural biosecurity concerns raised during the Bipole III licensing process, has developed biosecurity procedures for all of its operations to minimize the risk of transporting of invasive organisms (diseases, pests, and invasive species). These procedures are contained in Manitoba Hydro's Agricultural Biosecurity Standard Operating Procedures (SOP) and be found as an appendix in the Environmental Protection Plan for Bipole III. The SOP outlines the requirements that both Manitoba Hydro personnel and contractors are required to follow whilst undertaking construction activities on agricultural land in Manitoba and was developed in conjunction with inputs from both agricultural stakeholders, Manitoba Agriculture, Food and Rural Development and with reference to best practices provided by other utilities.

The SOP differentiates between low and high risk biosecurity situations. For example, undertaking construction activities during frozen or dry ground conditions with little soil disturbance generally constitutes a low risk from a biosecurity perspective. In all instances, equipment is required to arrive at site clean. Once the equipment is to be removed from site, it must be mechanically cleaned through brushing (also clean) to remove any soil adhering to surfaces. Should construction activities take place in conditions where the soil is wetter and can adhere or accumulate to equipment, the biosecurity risk becomes elevated to a high risk one and additional cleaning requirements are imposed. For example, after a rain event, there is a greater chance of soil accumulation and adherence to equipment. In addition to the mechanical brushing, additional cleaning such as pressure washing and disinfecting may be required.

In terms of the chemicals used for cleaning, Manitoba Hydro uses the disinfectant Virkon on all surfaces of equipment and footwear. Virkon is a multi-purpose disinfectant utilized throughout the agricultural sector and can also be utilized in lower temperature climates. Virkon is fully biodegradable and has no environmental impacts.

In addition to these requirements mandated by Manitoba Hydro, the Corporation recognizes that there may be some producers that require additional or more stringent biosecurity procedures and allowance for this has been made in the SOP. For example, on a hog production property, Manitoba Hydro worked with the producer to utilize its Synergize protocols for cleaning of equipment and footwear as Hydro staff and contractors moved from field to field, in order to meet its unique industry needs. The biosecurity protocol developed by the producers' veterinarian employs the germicide Synergize, used extensively within the pork and livestock industries. As a result of the success of this endeavour and its wide acceptance in the pork industry, Manitoba Hydro has adopted this revised protocol for any fields that have been identified by the landowner as being fertilized with manure. Further, Synergize is a germicide, and can be used in below freezing temperature with the addition of propylene glycol to delay it from freezing. In its pure state, Synergize has known aquatic environmental impacts on aquatic fish invertebrates, oysters and shrimp. Synergize is diluted at a ratio of 4ml to 1L of water and the

application of the product will be contained in the field away from any watercourses to mitigate environmental impacts.

Given the continuing concerns that have been brought forward through discussions with a variety of agricultural producers, in addition to the SOP itself Manitoba Hydro has also developed a Bipole III project-specific Appendix to the SOP that further defines and clarifies the cleaning requirements for high risk properties. The SOP, along with this Appendix, has been provided to the contractor undertaking the transmission line construction activities for Bipole III. Additional information about the presence of soil borne pathogens, such as clubroot, that have been identified through the Bipole III clubroot sampling program, have also been identified. This information is then provided to the contractor, the situation is given the high risk designation, and the contractor is required to follow the cleaning procedures as outlined in the Appendix to the SOP.

Manitoba Hydro continues to be committed to working with landowners to address biosecurity concerns they may have. As such, the SOP and Appendix are considered working documents and may be updated from time to time.