



MEMO

TO: Gary Tomlinson, MOECC Senior Environmental Officer

FROM: Darin Burr, Dillon Consulting Limited.

DATE: September 11, 2014

SUBJECT: Response to Ontario Ministry of the Environment and Climate Change (MOECC) September 10, 2014 inquiry regarding Dufferin Wind Power Transmission Line Pole Impact Assessment/Mitigation Measures – Sealing Protocol for Caisson poles

OUR FILE: 13-8287

CC: David Restivo, Environmental Monitoring Project Manager, Dillon Consulting Limited.
Don McKinnon, Project Manager, Dillon Consulting Limited.
Chad McAllister, Rebecca Crump; Longyuan Power

This memorandum provides our response to MOECC questions provided via teleconference on September 10, 2014 regarding surface sealing protocols for the hydro poles that are constructed using 8' (2.4m) diameter caisson foundations.

As discussed during the teleconference, surface sealing protocols will be as follows:

- a) Bentonite surface seal between the steel caisson and the surrounding ground is to be a minimum of 2' (0.61m) in vertical thickness.
- b) The horizontal width of the seal is to be field determined based on the geometry of the annular space that is present between the side of the steel caisson and the native ground (that has been filled with gravel as part of foundation construction).
- c) The width of the seal is to be a minimum of 6" (0.15m) and extend into the native surrounding soil so that the bentonite seal extends past the underlying granular material that was placed during pole construction
- d) For situations where the width of the seal is >6" (0.15m), the depth of the top of the bentonite seal will be placed to a sufficient depth to allow at least 0.30 m of gravel to be placed on top of the bentonite seal. The material placed over the bentonite seal will be self-compacting gravel to provide physical protection of the seal.

Respectfully submitted,

A handwritten signature in blue ink, appearing to be "D. Burr".

Darin Burr, M.Sc., P.Geo.
Dillon Consulting Limited

