MEMORANDUM

SUBJECT: EMF Impacts from Proposed WM Transmission Line
AUTHOR: Michael Spector, Assistant Engineer, Electric Transmission Planning
DATE: August 21, 2007

In response to John Brown's letter of June 29, 2007 to Central Hudson Gas & Electric Corporation (CHG&E), CHG&E provides the following information regarding EMF impacts from the proposed rebuild of the 69kV WM Line.

The State of New York Public Service Commission has set forth a "Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities" (Issued and Effective: September 11, 1990). This Interim Policy states:

> "Future Article VII transmission circuits shall be designed, constructed and operated such that magnetic fields at the edges of their rights of way (measured one meter above ground) will not exceed 200 milligauss when the circuit phase currents are equal to the winter-normal conductor rating (as defined by the New York Power Pool)."

For electric fields, the Interim Policy states and adopts the following:

> "Opinion 78-13 established an electric field strength interim standard of 1.6 kV/m for Article VII electric transmission facilities (at the edge of the right-of-way, one meter above ground level, with the line at rated voltage)."

Although the WM Line rebuild is not an Article VII project, Central Hudson applies the requirements set forth by this Interim Policy for this project.

Magnetic Fields

Central Hudson modeled the transmission line and performed calculations using EMF software for the post-insulator structures that are proposed for construction in the Town of Montgomery. The compact construction of these post-insulator structures will minimize the magnetic fields adjacent to the line. From Figure #1, it can be seen that at the edge of a 100-foot Right of Way, the magnetic fields are calculated to be approximately 20 milligauss (one-tenth of the Interim Policy's requirement). These calculations are performed for the conductor at its winter-normal rating (i.e., 1330 amperes) and at the mid-span of the line for the shortest designed pole heights, which represents the highest magnetic field likely to be measured from the line.

Electric Fields

From Figure #2, it can be seen that at the edge of a 100-foot Right of Way, the electric fields are calculated to be approximately 0.1 kV/m (one-sixteenth of the Interim Policy's

requirement). These calculations are performed at rated voltage (i.e., 69kV) and at the mid-span of the line for the shortest designed pole heights, which represents the highest electric field likely to be measured from the line.

Please contact Karl Schoeberl at (845) 486-5461 if you have any questions.

Figure #1: WM Line Magnetic Field Analysis

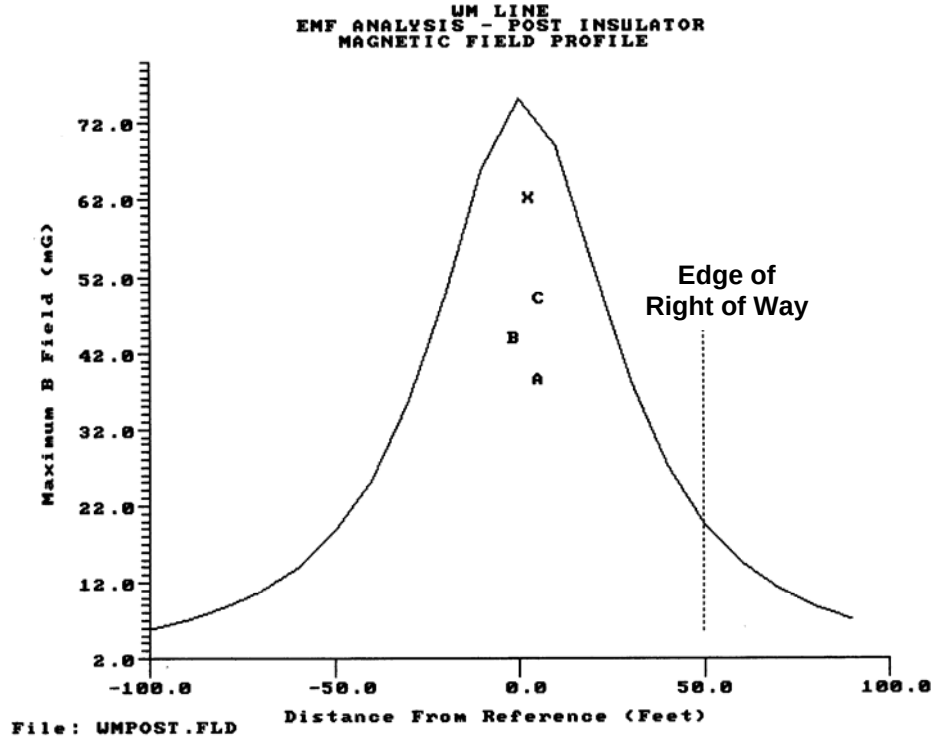
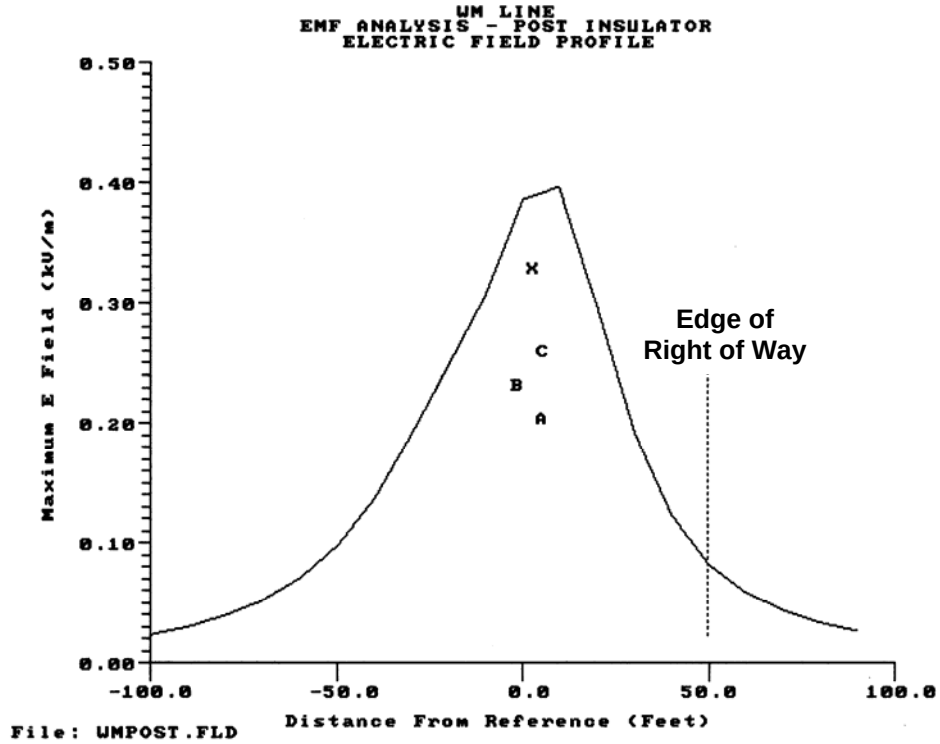


Figure #2: WM Line Electric Field Analysis



Note: A, B & C on the graphs represent where the transmission line conductors reside in space. X represents where the static wire resides in space.