



ADDEMDUM SEVEN

January 13th, 2015

**Design, Fabrication and Installation of a 61m Guyed VHF Tower,
Cape North, Nova Scotia
INVITATION TO TENDER
F5211-140388**

This addendum is raised to answer questions received by a potential bidder.

We do request a clarification of the specification concerning the grounding system.

Section 1010, 1.0 12th bullet calls for a complete grounding system (ground riser, bus bars, and etc.). There is no section specifically dedicated for grounding. On the other hand, Section 05020 Clause 3.1 states that "Connect the terminal end of the ground kit conductor to predrilled purpose specific holes in the tower or ground bar as is appropriate to the specific installation."

In Appendix E, there is a sketch showing the "Existing Grounding System".

Hence, here are our questions:

Question 1

Is a "riser" in the tower required? If yes, why not connect the grounding kits to the riser rather than in holes? If yes, what is the required material for the riser (bare copper, tinned copper, galvanized steel or other)?

Answer 1

A riser is not required on the tower. Grounding of transmission lines at antenna level can be provided by a secure connection to the tower in a manner that provides good electrical connection and does not weaken the structure.

Question 2

How many bus bars should we include? Do we have to include a bus bar at each antenna? What is the required material for the bus bars?

Answer 2

One new ground bus bar is required at the tower base directly below the area where the transmission lines begin to change from a vertical to horizontal alignment. The ground bus bar shall be securely fastened to the tower and provide good electrical connection to the tower. The ground bus bar shall also be bonded by CAD weld to the existing tower ground ring with a minimum of 2/0 AWG multi-stranded copper conductor. The existing ground bus bar at the building entrance can be reused.

Question 3

What are the type of preferred connections for the grounding system (mechanical, compression or exothermic)?

Answer 3

An exothermic connection requiring a mold (commonly referred to as a CAD weld) is the preferred connection for the grounding system unless otherwise stated

Question 4

What kind of buried grounding is required? As per CSA S37-13 or with buried radials? What is the required material for the conductors? If radials are required, how many and length?

Question 5

Can the existing grounding system be reused as part of the new tower grounding system?

Answer 4 & 5

The existing buried ground system shall be reused to ground the new tower. The tower base shall be connected by CAD weld to the existing tower ground ring with a minimum of three (3) conductors at 120 degree spacing, using a minimum 4/0 AWG stranded copper conductor.

ANY AMENDMENTS TO BIDS WILL BE ACCEPTED BY FAX AT 506 452-3676 PROVIDED THE ORIGINAL BID AND THE SUBSEQUENT AMENDMENT ARE RECEIVED PRIOR TO CLOSING TIME OF 2:00 PM WEDNESDAY, JANUARY 14TH, 2015. ALL OTHER TERMS AND CONDITIONS WILL REMAIN THE SAME.