

COTW REPORT



October 29, 2010

MEMO TO: FRED MANSON, CHIEF ADMINISTRATIVE OFFICER
FROM: DOUG BANKS, FIRE CHIEF
SUBJECT: PROPOSED TELECOMMUNICATIONS TOWER – FIRE HALL EXPANSION PROJECT – HEALTH AND SAFETY ISSUES

ISSUE:

Safety concerns regarding the installation of a telecommunication tower as part of the Fire Hall Expansion Project.

EXECUTIVE SUMMARY:

Staff has compiled information on this subject for Council. Information provided from the regulatory bodies that have responsibility for these matters indicate that any emissions are within current guidelines that have been adopted by Industry Canada, the governing body.

REFERENCES:

Industry Canada Safety Code 6
Worksafe BC Comments
IAFF Position Paper - 2004

BACKGROUND:

At the regular meeting of Council held on October 18, 2010 at the Knox United Church, comments were requested regarding the proposed telecommunications tower to be included in the design and construction of the hose tower as part of the overall Fire Hall Expansion Project. A member of the public asked if the health and safety effects of such installations had been looked into. Information gathered prior to and since the October 18 Council meeting from Industry Canada, the regulating body, indicates that this type of installation is within the currently adopted guidelines. In a report from Industry Canada entitled "Evaluation of Electromagnetic Field Intensity in the City of Toronto" the testing showed that the site with the highest radio frequency level was 16 times less than the Safety Code 6 limit. A further 10 sites were evaluated in residential areas which showed the levels being on average 7194 times less than the safety Code 6 limit. A similar study was conducted by Industry Canada at Triangle Mountain in Colwood which showed that an on average measurement of 5.2% and a maximum measurement of 9.1% of the Safety Code 6 exposure limit for the general public.

Worksafe BC was asked to comment on the possible exposure to workers at the fire hall. A copy of their comments are as follows:

"Occupational Health and Safety Regulation Section 7.19(4)(a)(iii) will apply for the firefighters as they are not 'RF' workers.

The employer must ensure that a worker's exposure to non-ionizing radiation does not exceed the exposure limits specified in

(a) for radiofrequency

- (iii) *Health Canada Safety Code 6, Limits of Human Exposure to Radiofrequency Electromagnetic Fields in the Frequency Range from 3 kHz to 300 GHz, 1999, as amended from time to time*

On site field evaluations at a site in Victoria indicated that RF fields for non RF workers would be below the 6 minute Health Canada standard of 1.00 mW/cm² if workers remain at least 45 cm (18 inches) from RF generating equipment and splices. Areas where RF fields exceed 1.00 mW/cm² should be identified (this was a tagging process at the site in Victoria) and safe access routes identified.

It is the responsibility of the owner to ensure that information regarding the power levels is obtained and available for other workers. The site should also be posted as a potential exposure area."

Information from the International Association of Fire Fighters, indicates that they have asked for a moratorium on such installations in fire halls that have career staff 24/7 until more testing has been completed. This study was adopted in 2004. This report provides some evidence of concerns but agrees that it needs to determine what "weight" to give to the evidence.

OPTIONS:

1. Approve the request to have Telecommunications Equipment installed as part of the Fire Hall Expansion Project.
2. Deny the request to have Telecommunications Equipment installed as part of the Fire Hall Expansion Project.

ANALYSIS:

1. Approving the request will allow the project to proceed with the Telecommunication Equipment as part of the project provided the installation meets or exceeds current Industry Canada Guidelines (Safety Code 6)
2. Denying the request will allow the project to proceed without the Telecommunication Equipment as part of the project.

SUSTAINABILITY/ENVIRONMENTAL IMPLICATIONS:

The installation must meet the current guidelines as established by Industry Canada, the regulating body with jurisdiction covering the emissions from this type of facility.

FINANCIAL IMPACT: Approving the installation of the telecommunications equipment will provide annual lease revenue to the City in an amount to be negotiated. Telus will be responsible for all of the costs to upgrade the structure to accommodate the additional height. There will be additional cost savings to the City when the second floor is required to be constructed on the fire hall as this upgraded work will contribute to the necessary upgrades required for the future construction

STAFF RECOMMENDATION

THAT the report from the Fire Chief dated October 29, 2010 entitled "Proposed Telecommunications Tower – Fire Hall Expansion Project – Health and Safety Issues", be received;

AND THAT any agreement negotiated with Telus for the installation of telecommunication equipment in or about the Fire Hall be subject to the telecommunication equipment meeting Industry of Canada Safety Code 6 limits.

Respectfully submitted,



DOUG BANKS
Fire Chief

Attachment

CHIEF ADMINISTRATIVE OFFICER'S COMMENTS:



FRED C. MANSON, CGA
Chief Administrative Officer