

# Living in the shadow of a cell tower

Italy - February 2006

Good afternoon.

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I am pleased to be here, representing over 267,000 members of the International Association of Fire Fighters.

During my time here, I hope to draw your attention specifically to the position our organization has taken regarding the citing of Cell Towers on our worksites and how it came about.

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Fire stations may seem like the logical locations to place cellular transmitters for several reasons. In most cities, the Fire Service is located strategically around the most densely populated areas.

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In Vancouver, for example, we have 20 Fire Stations. Each station is designed with what we call

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a hose tower, usually much higher than the rest of the building. In actual fact we dry the wet hose inside the tower, and use the outside

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of the tower to practice our skills. Our Fire Stations are also staffed 24 hours a day, and therefore they are less likely to be a target for vandalism.

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So for the Cellular providers it a perfect situation with an existing structure; For the City, on the other hand, knowing Fire Departments aren't known for creating revenue,

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this becomes an opportunity to generate income. It seems on the surface to be a win/win situation for both the Cellular industry and the City. So what is the down side? That's where we come in!

I want use my Department in Vancouver as an example of what is happening all over North America, and in fact around the world.

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Years ago, our City decided to lease part of this Fire Station to a Cellular provider and when the Tower was first installed, some members were concerned and asked questions. The answers sounded reasonable, we were told that the installation was checked and operating well with in the Safety Regulations that are in place. We trusted the City at their word that they would ensure for our safety. In 2001 we had a brand new

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Fire Station built that also included a Cell Tower. With more of our members expressing concerns, our Safety Committee started asking questions, and again were told that there was no possible harm from these Cell Towers. This time, we wanted to know more. We started by obtaining copies of the

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contracts between the City and Cellular providers. Other than discovering how much money was invoved (which was minimal), we noticed some disturbing facts in the contract.

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The Cellular Provider could expand the number of transmitters at any time providing they kept under the maximum exposure allowed by "Safety Code 6." This meant it might be bad now, but it could only get worse. Our biggest concern came from the contract clause

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that said; The City is to be indemnified for liability including, without limitation, liability relating to health issues. Now remember, these were the very people who told us we were safe, but just in case, they signed the contract ensuring they couldn't be held responsible! That's when we realized we needed to more about "Safety Code 6"

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We started by reading articles about Safety Code 6, now remember we're Fire Fighters. Perhaps you understand everything it actually says, but for us, much of it might well have been written in Italian... But we did understand

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that it was primarily based on Thermal heating over a 6 minute exposure, and from that, the guidelines established would

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Protect RF workers by one standard and

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the general public by another. I'm not a Scientist, Professor or Doctor, but from a Fire Fighter's perspective, a safety guideline based on an exposure that must actually heat body tissue in 6 minutes doesn't make sense when you're exposed for hours on end and over a career of 30 years.

We met a local activist Milt Bowling, who gave such a compelling talk that we were able to convinced our City to hire a consultant

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to come into our worksites and conduct testing of the exposures to our members. Before the testing began, we assumed, at least we hoped, that the "exposure" would fall within the limits of Safety Code 6, but we had read enough to know,

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Our concern wasn't surrounding what Safety Code 6 protects

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Our concern was about what it doesn't seem to address,

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and that is the effects of long term, low level exposure.

The day the "expert" came with his results and tried to alleviate our concerns. He couldn't grasp the idea that our main concern was – long term low level exposure.

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Instead of reducing our concerns, his presentation actually had the opposite effect.

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It began with the first line of his personal introduction.

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He was not a specialist on health affects of wireless communications. We thought we were going to hear from someone who could speak to us about the health concerns we had, someone who could tell us about long term effects. He instead talked of Safety Code 6, and that we were well protected by it. He told our Chief that

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"The Fire Department may choose to adopt either public or occupational exposure levels." Since then, we found out that wasn't true, but that's what we were being told by the "expert." I'm sure he said after he saw how high some readings were. His presentation then dealt with his only knowledge of the health effects.

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His medical health advice had come from a web page from the Local Medical Health Officer, who

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has concluded that there is no public health benefit in practicing prudent avoidance with respect to cellular phone transmission antennae.

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And that Safety Code 6 is based on current scientific data and is considered one of the strictest in the world.

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Some of the information he gave us in his presentation was very valuable;

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Readings taken at the roof level ranged from 0.002 mW/cm<sup>2</sup> to 0.2 mW/cm<sup>2</sup>. 4 feet under that roof is where we live, eat & sleep, and we know that radiation can go right through a roof.

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Readings taken on our Aerial Ladder were much higher - from 1.2 mW/cm<sup>2</sup> to 3.0 mW/cm<sup>2</sup>. We now realized that allowing members to use ladders around the Fire Station was increasing the risk even further, so that practice has now been stopped, and large danger signs you saw in the pictures were installed. Keep in mind, we had been climbing on ladders around the Towers for nearly 4 years after we had had asked if it was safe!

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No discernible readings were found inside the Fire Station? The presenter had made a big deal about the \$15,000 piece of equipment used, and how it was the most sensitive meter money can buy, and that inside the station the needle never moved. It was really quite funny when one of our members in this meeting held up his own cell phone and said that his phone was only \$29 and its meter was showing four bars... Remember we're Fire Fighters, not Scientists! He ended his presentation with something we were already becoming aware of.

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Most studies had created controversial results and more study is needed. We started looking at those studies

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and after looking at the long list of bad things that could happen, we had only one conclusion

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We had everything to worry about!

About the same time, in California

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Fire Fighters were beginning to experience some health problems. These are some of the symptoms those Fire Fighters had. Doctor Gunner Heuser began to look at those Fire Fighters and conducted some testing, including a brain SPECT scan. 6 Fire Fighters had all been stationed for approximately 5 years at a Station with a Cell tower. Dr Heuser concluded that the brain SPECT scans were clearly abnormal. 5 of the 6 showed a high degree of abnormality, and the one member with the least amount of damage was a Captain who was transferred out of that Station 60% of the time.

Even if we were to discount all the possible long term health effects and accept the notion that Fire Fighters are expendable, and I hope you don't! Look at the top 3. In our business you need to be able to react instantly and those top 3 symptoms alone can kill not only you, but endanger your co-workers or even the community your trying to serve. I can't imagine going to a Fire without all my wits about me.

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This small pilot study is obviously not acceptable to the scientific community and it would be medically imprudent to submit a study of only 6 firefighters due to the small sampling group, however,

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the results of this pilot study

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the conclusions of the doctors involved

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the symptoms of the Fire Fighters which follow a timeline concurrent with the Cell tower on their station

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plus the growing number of Cell Towers on Fire Stations

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and the unanswered concerns from Fire Fighters around the world, lend credence to support the decision the IAFF delegates took by passing the resolution.

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Fire Fighters regardless of what country or community they serve are constantly placing themselves in harms way to protect Life, Property and the Environment.

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When I began my career 25 years ago, I knew that our occupation has risks. Over the years I have watched as our Safety Committees and our Union addressed safety concerns regarding many different aspects of our job. I'd like to take a minute to present an analogy that I believe is so similar and directly relates to how the Fire Fighters address our concerns;

When Fire Trucks all began using diesel, Fire Fighters asked if it the exhaust was safe in our Fire Stations?

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We were told it was. Time passed and in the 80's Fire Fighters again raised the concern regarding the plume of diesel exhaust every time the Fire Trucks started.

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Every time we drove out of the Station, to help someone else the exhaust residue was being spread all around where we live. We had the regulatory "experts" come to the Fire Stations and they tested the exposure cause by this. The results were within "acceptable limits", but the Fire Fighters questioned who set those limits. What are those "acceptable limits" based on and what possible harm could there be if we were exposed to those "acceptable limits" for an entire career? The IAFF required

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a study of the highest scientific merit and integrity, and when it was completed we found that

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The diesel exhaust contained over a 100 different hazardous chemical components, that when combined, can cause cancer, cardiac problems, respiratory problems or other serious health issues. NIOSH says,

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that, there can be no safe level of exposure to a carcinogen and therefore NIOSH's Threshold limit Value is the "lowest feasible level" possible. And for the Fire Service,

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The National Fire Protection Agency recommends "no less than 100% capture" is acceptable

\* (new photo needed)

I am happy to say that Fire Stations all around North America are now required to have exhaust extraction manifolds. Why,

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because the study proved that the carcinogenic plume of diesel exhaust had adverse health affects to our members.

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It doesn't mean we don't use diesel Fire trucks, it means we use them safely and don't silently kill ourselves in the process. Following our 2004 convention in Boston that passed our resolution, we contacted

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The World Health Organization with our concerns and the response we got from the Professor validated those concerns. She stated;

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"Currently, no good studies of populations around base stations are available." And

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"I do think that the long term studies of occupational RF exposure are needed." Individuals who choose to use Cellular phones also should know the risks, but they have an option. Fire Fighters living in the shadow of a Cellular Tower do not have that choice. Prudent Avoidance and the precautionary principle need to be used to keep us safe. Until the study is completed, and the results are known the following resolutions will remain in place.

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That the IAFF shall seek funding for an initial U. S. and Canadian study with the highest scientific merit and integrity, contrasting firefighters with residence in stations with towers to firefighters without similar exposure; and it was further RESOLVED,

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That in accordance with the results of the study, the IAFF will establish protective policy measures with the health and safety of all firefighters as the paramount objective; and finally, and perhaps the resolve that got the most attention,

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That the IAFF oppose the use of fire stations as base stations for antennas and towers for the conduction of cell phone transmissions until such installations are proven not to be hazardous to the health of our members.

The IAFF and its medical team believe this study is necessary to truly determine the effects of long term - low level radio frequency radiation on the central nervous system, the immune system, as well as other metabolic effects observed in the preliminary studies.

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We choose to do our job and accept the higher degree of risk involved when picking this career. What we expect is that when we are not responding and are in and around our stations, any exposures should be as low as possible. I may choose to use a cell phone, but I can hang up. At work I can't hang the Cell tower, it's always on. Involuntary exposure because someone wants to make money is

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not acceptable. Our Health and Safety is not for sale! I want to thank the City of Benevento and the International Commission for Electromagnetic Safety for inviting me

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and the International Association of Fire Fighters to share with you during this conference. Thank you very much.