CTIA

REPRESENTING THE WIRELESS INDUSTRY

PROCEDURES AND RESOURCE MANUAL FOR PUBLIC HEALTH AND SAFETY ISSUES

Comprehensive Program:

HANDSETS/INSTRUMENTS

INFRASTRUCTURE-TOWERS/BASE STATIONS

ELECTROMAGNETIC COMPATIBILITY/INTERFERENCE

DRIVER SAFETY

WIRELESS COMMUNICATIONS INSTRUMENTS

ANTICIPATED QUESTIONS/RECOMMENDED RESPONSES

GENERAL

Q1. *How do you respond to talk of a possible link between cellular phones and cancer?*

A1. There is no research, involving human beings or research animals, that indicates cellular telephone use is a cancer initiator or promoter. In fact, no research has shown that electromagnetic emissions characteristic of those of cellular telephones cause any adverse health effects.

Q2. *What makes the industry so confident these products are safe?*

Q2. Though cellular phones are relatively new, the scientific principles and phenomena underlying their design and use are not. There is a significant — and growing — body of scientific evidence and discussion dealing with the effects of radio-frequency (RF) energy and electromagnetic fields. To date, no studies have concluded that exposures characteristic to those of cellular phones can or do cause cancer. The overwhelming consensus is that these products are safe under conditions of normal use.

Q3. *Can you cite any studies indicating that cellular phones are safe?*

A3. The FDA, EPA and the SAG are all closely monitoring this issue.

A November 1994 report by the Government Accounting Office (GAO) concludes, "On the basis of present scientific knowledge, FDA and EPA have had no reason to take regulatory actions on the use of portable cellular telephones."

No strong biological rationale exists for suspecting or predicting that hand-held cellular phone use adversely affects human health.

A great deal of existing relevant research bears directly on this question. Based on this body of knowledge, the FDA has not elected to regulate the RF emissions from cellular phones or other wireless communications instruments.

If evidence of a health risk had been found, the government would have instituted regulations and the SAG would have recommendated appropriate corrective actions to mitigate the risk.

Q4. *Have any studies shown — directly or indirectly — that cellular phones could be harmful?*

A4. No. The work of Dr. Stephen Cleary at the Medical College of Virginia has been cited by some as a basis for suspicion. Dr. Cleary found cancer proliferation in cells exposed to radio waves in petri dishes. However, those experiments were conducted at a different frequency and at power levels well in excess of those used by cellular phones. No such effects have been observed in experiments performed at frequencies and power levels typical of cellular telephones. It is important to note that while Dr. Cleary has taken the position that his findings warrant further exploration, he told a Congressional subcommittee on February 2, 1993, that it does not provide a basis to conclude that portable cellular phones cause cancer.

Q5. *What about noncancerous health effects?*

A5. No adverse health effects of any kind have been observed in experiments conducted at frequencies and power levels characteristic of those used by cellular phones.

Q6. *Cellular phones generate electromagnetic fields. Aren't those fields dangerous?*

A6. All electrical devices, from TVs to toasters to hair dryers, from computers to power tools to electric blankets, generate electromagnetic fields. There is no evidence to date that the type of fields common to cellular phones have any adverse health consequences.

Q7. *Don't cellular phones emit microwave frequencies that can be harmful?*

A7. Microwave ovens and cellular phones occupy frequencies that are relatively close on the electromagnetic spectrum, but it is the *energy*, or *power*, of microwave ovens — not their operating frequency — that causes them to generate heat and affect tissue.

Clearly, microwave radiation at very high power causes heat. That is how microwave ovens cook food. But cellular phones are far too weak to have this effect, operating at a maximum power of 0.6 watts .

Cellular phone signals are able to travel the distances they do because of the sensitivity of the receiving tower, not the power of the phone. Portable phones transmit at a maximum of only 0.6 watts and or even less — they are built to automatically step down to the lowest level of power necessary to communicate with the nearest tower. In a typical urban market, cellular phones operate at full power only 5 percent of the time.

Q8. *What government agencies oversee the safety of cellular phones? And what have they, or others, said about the safety of cellular phones?*

A8. The Federal Communications Commission regulates the allocation and use of the electromagnetic spectrum. It adopts exposure standards for radio-wave emitters like cellular phones, which fall well within the current and latest proposed standards.

The Food and Drug Administration (FDA) counts minimizing exposure from radiation-emitting electronic products among its responsibilities.

The general issue of RF exposure has been addressed in the past by the National Institute of Occupational Safety and Health, the National Council on Radiation Protection and Measurements, and the International Radiation Protection Association.

The current widely accepted standard for RF exposure was set through a process of rigorous, multidisciplinary review by the Institute of Electrical and Electronic Engineers (IEEE) and the American National Standards Institute (ANSI). The IEEE has stated: "Under conditions of normal use, the general conclusion is that cellular telephones are considered safe for the users and the public." The specific issue of health effects related to cellular telephone use is under review by the Food and Drug Administration and the Environmental Protection Agency.

NOTIFICATION

In the event of an abrupt or major crisis, members of the CTIA crisis working group should be notified immediately by phone. Follow up quickly with a fax that provides all relevant details of the problem at hand. Update the crisis working group as events unfold with information about media inquiries, media coverage, legal, and health-related developments. Arrange a conference call to review the details and develop a sound response strategy.

In cases of a local or regional crisis, it may be preferable for the affected company or companies to respond directly rather than having CTIA respond. Before that decision is made, it is advisable to notify the CTIA public affairs staff and then to keep CTIA abreast of major developments that could cause the problem to spread or otherwise affect on the industry as a whole.

Any situation involving alleged health or safety risks from wireless communications instruments should be reported immediately to CTIA, which has the responsibility to alert the SAG crisis working group and discern which organization should respond.

ASSESSMENT

The key to effective crisis management and media relations is to remain calm. Take time to determine the nature, scope, and intensity of the situation, however worrisome on the surface. The same guarded approach should be taken in cases that appear benign but could hold hidden dangers. In any event, gather the facts. Determine the origin and validity of the clues indicating there is or could be a crisis. Assess the reach and potential effects, along with the likely timetable. If the genesis of the crisis is a media inquiry or story, gather information about the reporter or news organization to establish motive, credibility, and/or likely impact. Knowing when and where a story in progress is to be printed or aired can be an important guide in formulating a response.

Whether the crisis appears local, regional, or national, draw on the resources of CTIA, SAG, and member companies to determine its severity and mount an effective, consistent, and coordinated response. Make calls to determine whether others within the industry are aware of the situation or have received inquiries from the media or the public. Industry-wide awareness and vigilance can help project how quickly the crisis will escalate or decompress.

RESPONSE

Containment is a key goal of crisis response. Tactically, that can take many forms — ranging from a full-blown counter-offensive to limited or no media outreach. Before that decision is made, the containment strategy must be thoroughly discussed, properly evaluated (when warranted) by outside specialists, and agreed upon by all who are part of the crisis working group.

In the heat of crisis, it is crucial to exercise control. While there may be intense pressure — from internal and/or external sources — to go public, take time to understand the issues, analyze the facts, anticipate the questions, and prepare responses that incorporate basic industry talking and message points.

Limit the number of people who will speak for the company or the industry. Prepare those individuals — in style as well as substance — for dealing with the issue in a potentially hostile public environment. Designate and familiarize them with industry issues ahead of time if possible. The guidelines at the end of this section are applicable for any crisis situation.

Know what materials — written, video, and graphic — are available for each of the major issues. Familiarize yourself ahead of time with third-party sources.

Remember all the basic tools that can be used to respond to a crisis — news releases, news conferences, media tours, satellite media tours, video news releases, and audio news releases. Consult CTIA and possibly others on advertising options.

PEER REVIEW BOARD
for the Scientific Advisory Group (SAG) on Cellular Telephone Research

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AUTHORITATIVE THIRD PARTIES

Authoritative third parties are divided into two categories:

- ***informational resources*** — those who should generally be called on only as informational resources (to offer clarification and insight to the industry, NOT individuals to whom to direct reporters)
- ***potential media resources*** — scientists and researchers who are experts on a particular issue and, in many cases, who have been quoted previously in media coverage of that topic. It is important to note that these individuals are completely independent of the industry and have not been asked by either CTIA or SAG to serve as any type of spokesperson. In light of their expertise, however, it may be appropriate to recommend them as resources to reporters looking for additional information on a given subject.

Please do not contact informational resources or refer reporters to media resources without first checking with Mike Houghton at CTIA *(202) 736-3207* to ensure that the list is current and that a particular individual is an appropriate source for a specific issue.

INFORMATIONAL RESOURCES

The following lists include members of the Scientific Advisory Group and Peer Review Board. They are listed here for your convenience but should only be contacted after checking with CTIA. These individuals are available as informational resources only. They are not designated media resources.

Members of the Scientific Advisory Group (SAG) on Cellular Telephone Research

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BRAIN CANCER

Q13. *Hasn't there been an increase in brain cancer since cellular phones were introduced?*

A13. A slight statistical rise in brain cancers has been noted in the past few decades, but it has occurred mainly in people over 65 and is generally attributed to better diagnostic techniques. Another possible explanation for the seeming statistical increase in the incidence of brain cancer is the "competing risk phenomenon," which dictates that as we do a better job of preventing and treating other life-threatening diseases, particularly among the elderly, a greater percentage of deaths will appear to be caused by cancer. In effect, medical strides against traditional killers like cardiovascular disease create at least the appearance of a higher cancer rate among the elderly.

Brain cancer among younger individuals — those more likely to use cellular phones — is actually decreasing.

REYNARD CASE

Q14. *How can you explain the fact that the woman died of a tumor that was located close to the antennae of her cellular phone?*

A14. First of all, no authoritative medical or scientific evidence has been offered to support the contention that death was related to cellular phone use. But in discussing brain cancer among cellular users, you also must put the issue into perspective.

The laws of random chance dictate that given the distribution of the disease across the general population, some members of any large segment will contract brain cancer.

The American Cancer Society estimates that about 17,500 cases of brain cancer are diagnosed each year. Therefore, in any random group of 20 million Americans (the approximate number using hand-held portable cellular phones) we could expect to see about 1,340 cases of brain cancer diagnosed annually. Citing similar statistics, editors of the *Mayo Clinic Health Letter* advised readers to "keep your perspective on cellular phones. ... There's no proof that microwave radiation from cellular phones carries a health risk."

Q15. *Isn't the location of the portable cellular phones' antennae — a few inches from your head — dangerous?*

A15. No. Cellular phones operate at low power to start with, and the power drops dramatically with distance, even a distance of a few inches or centimeters.

In disputing any notion that cellular phones have contributed to a rise in brain cancer, Dr. Kristian Storm, at the University of Wisconsin, adds that during the first decade of cellular phone use, "the location of brain cancers remains random throughout the brain, and has not become maldistributed adjacent to the location of the antenna."

SAFETY CLAIMS

Q16. *Why do cellular phones come with warnings if they aren't dangerous?*

A16. Like all electrical devices, cellular phones come with instructions to assure their safe and effective use. Warnings are aimed at preventing misuse and do not apply to public health issues.

INDUSTRY RESPONSE

Q9. *What is the industry doing to allay concerns about cellular telephone safety?*

A9. While the research to date has indicated no connection between cellular phones and adverse health effects, the industry is sensitive — and responsive — to public concern.

Cellular carriers and manufacturers established a long-term, independent research program, initially allocating an estimated $15 million to $25 million and making a commitment to provide the funding necessary to support critical research in a defined timeframe. The research will definitively assess whether the use of hand-held cellular phones and other wireless communications instruments has any health impact.

- A Scientific Advisory Group (SAG) on Cellular Telephone Research, comprised of three highly regarded scientists who are specialists in relevant fields, was established to oversee the program. Undertaken with the highest degree of scientific rigor, the program includes a review process coordinated through the Harvard University Center for Risk Analysis.
- To reaffirm the independence of the effort, all of the scientists involved are compensated through a blind trust.
- The FDA and other relevant federal agencies have been involved in the research effort from the outset, as have some 150 scientific experts from across the country.

Q10. *Will the cancer studies be objective?*

A10. Yes. By trusting the research to outside scientists and subjecting their findings to independent peer review, we are determined to assure that this process is objective. In addition, a trust arrangement funds the peer review process and the outside, independent research.

Q11. *What is the status of this research effort?*

A11. The research program is expected to take three to five years. A comprehensive review of existing data is complete. Based on that review, as well as input from scientists in government, academia, and the private sector, a research agenda was completed, peer-reviewed and released in August of 1994. The agenda will direct the development of a new series of RFPs with studies expected to be commissioned in 1995.

There was an early clear consensus about the need for certain dosimetry, epidemiology, and laboratory studies, which are under way.

- The focus of the dosimetry research is to determine the specific absorption rates (SARs) for actual cellular phone use and which of the commonly used dosimetry models are most appropriate for the evaluation of exposures to cellular phones. The studies will also develop exposure systems for animal studies that specifically relate to exposures from wireless communications instruments. Dosimetry research is being conducted by Dr. C.K. Chou of the City of Hope National Medical Center in Duarte, California, Dr. Om Gandhi of the University of Utah in Salt Lake City, and others.
- Internationally recognized researchers Dr. Kenneth Rothman and Dr. Nancy Dreyer (of Epidemiology Resources, Inc., Newton, Mass.) are directing a large-scale epidemiology study to investigate the possible impact of exposure to radio-frequency waves on human health.

Q12. *If you think cellular phones are safe, why are you doing these studies?*

A12. We believe an independent research effort is the best way to provide the type of information our customers want about the safety of these products.