concern that the commission may not be aware of the significant local concerns about this issue. The commission is urged to make an effort to contact state and local governments.

National Association of Broadcasters: NAB urges the commission to base its regulations on the 10 mW/cm² standard long recommended by the Occupational Safety and Health Administration (OSHA).... Should the commission choose the new ANSI standard, NAB believes the broadcast industry will generally be able to meet it, although there may be some installations that would require special considerations. *And,* Rather than uniformly applying its radiation standards to all services, the commission should instead apply them only to fixed services operating at sufficiently high ERP levels to create any possible hazard. To specially scrutinize applications in "any service" would constitute regulatory overkill—and is not required of the commission under the National Environmental Policy Act (NEPA).

National Association of Public Television Stations: NAPTS also urges the commission not to take any action which would unnecessarily discourage the shared use of antenna sites by television broadcasters. *And,* NAPTS asks the commission not to take any action which unnecessarily disadvantages UHF television stations. Some 60% of public television stations operate in the UHF band, so any extra burden imposed on UHF stations would fall disproportionately on public television. This is not to say that NAPTS advocates permitting the existence of hazardous conditions, for it does not; but neither should the commission impose restrictions which are not clearly shown to be necessary to preserve the health and welfare of the public.

National Marine Engineers' Beneficial Association (Radio Officers Union, District 3): The ROU is adamant in its objection to in-port operation of satellite equipment with regard to tankers, LNG carriers, ammunition ships, and similar vessels engaged in cargo operations. The possibility for a catastrophic event triggered by a radiating ship satellite antenna is obvious. *And,* The principal hazard posed by ship earth terminals is the fact that their antennas are frequently mounted only a few feet above deck level.

RCA: The current status of federal non-ionizing radiation emission and exposure standards is as follows: BRH has not issued an RF emission standard (other than for microwave ovens); EPA has not issued a public exposure standard; and, OSHA is in the process of revoking its worker exposure standard. Thus, if the commission now proceeds to adopt its proposed regulations for implementing NEPA, it will have no basis for evaluating compliance with Federal radiation health and safety standards.

Satellite Business Systems: The transmissions from SBS's earth stations will not exceed 10 mW/cm² even directly in front of the antenna. As SBS pointed out in its comments in response to the commission's 1979 Notice of Inquiry, earth stations by their very nature would present little danger to workers or the public even when operated at powers above 10 mW/cm². As parabolic antennas used with earth stations direct the radio frequency emission in a narrow beam upward toward the satellite and, further, as access to such antennas is restricted, there is little chance of exposure to workers or the public.

TV Broadcasters All Industry Committee: The new ANSI C95.1 standards reflect an effort to formulate a frequency-dependent approach to RF radiation standards. While the ANSI standards are more stringent than the 10 mW/cm² standard at certain frequencies, they are not so stringent as to impair broadcasting services. Thus, if EPA or OSHA find it scientifically necessary to adopt the ANSI standards, the committee would not object to their use by the commission—even though there is no credible evidence that the 10 mW/cm² standard is inadequate.

Utilities Telecommunications Council: UTC opposes implementation of the commission's proposal at the present time. In view of the fact that the various federal agencies responsible for setting public exposure standards are only in the preliminary stages of standard development and in light of the disparate views and positions of scientists the world over concerning what constitutes a radiation "hazard," UTC submits that it would be premature for the commission to begin enforcing OSHA's present recommendation of 10 mW/cm² when reviewing applications for equipment or construction permits. ●

UPDATES

Biological Effects...In our March 1981 issue, we reported that an army pathologist had observed an association between chronic exposure to microwaves and polycythemia vera, a rare blood disease, in the El Paso, TX area. Now comes word from Atlanta, GA, that local doctors have identified some 25 cases of polycythemia among people living near the Savannah River plant in South Carolina. At first, many suspected ionizing radiation might be involved, given that radioactive materials are handled at the nuclear weapons plant, but no definitive assessment will be available for some time. A spokesman for the South Carolina Department of Health said that a study is underway with the cooperation of Georgia health officials and experts from the Centers for Disease Control (CDC) in Atlanta. (The plant is near the Georgia border.) Protocols are being designed, and the results of the study may take as long as a year. CDC's Dr. Robert Winslow said that there was little to go on at the moment and that researchers were having a hard time tracking down all the cases; he could not yet confirm that there were indeed 25 cases of polycythemia ....The American Institute of Medical Climatology (AIMC) is sponsoring a conference on *Environmental Ions and Related Biological Effects* on October 30 at Drexel University in Philadelphia, PA. One of the principal topics to be discussed is high voltage direct current transmission lines. The fee for AIMC members is $25, for others it is $35. For more information contact: AIMC, 1023 Welsh Road, Philadelphia, PA 19115, (215) 673-8368....The AIMC has compiled a comprehensive and critically annotated bibliographic literature review of the biological and behavioral effects of exposure to air ions. It is available for $65 from Dr. Jonathan Charry, Rockefeller University, 1230 York Avenue, New York, NY 10021.... EPA's Experimental Biology Division has awarded a $34,000 contract to Kunz Associates of Albuquerque, NM, to develop a computer code to calculate microwave energy deposition with a high spatial resolution. And the division is negotiating a contract with Dr. Aaron Saunders at Duke University Medical School for a study of the interaction of RF/MW radiation with the brain energy metabolic pathway....The first *International Conference on Psychophysiology* was held in Montreal, Canada from July 29–August 1. One session, chaired by Dr. Jose M.R. Delgado, was on "Biomagnetism in Psychophysiology," and featured papers by Drs. Ross Adey, Andrew Bassett, Eldon Byrd, John de Lorge, Sylvia Filton-Jackson, H. Weinberg, P.A. Brickett, L. Deecke, J. Boschert as well as Delgado....In a special review and tutorial article, Professors C.K. Chou and Bill Guy review auditory perception of RF fields in the June issue of the *Journal of the Acoustical Society of America.* The authors conclude that "the evidence is now strongly convincing that the hearing phenomenon is related to a thermoelastically induced mechanical vibration." They explain, "absorption of microwave energy produces nonuniform heating of the exposed head; a thermoelastic wave of pressure is then launched, presumably through bone conduction, to the cochlea where it is detected."

Communications...CBS has released the results of a two-month experiment in broadcasting TV in the 12 GHz band. CBS found the tests "encouraging" even though "satisfactory reception depends on line-of-sight availability from the transmitting antenna to the receiving antenna" and "rain attentuation is considerable." CBS has argued that the FCC should allocate part of the 12.2–12.7 GHz band for high-definition TV (HDTV) instead of reserving it exclusively for direct broadcast satellite (DBS) systems. The CBS report concludes that, "If the 12 GHz band were made available for the terrestrial broadcasting of HDTV, there can be little doubt that the ingenuity of the broadcast community would develop the necessary techniques to provide a viable broadcast service."...ITT is having problems siting a

20-watt relay tower in South Nyack, NY, one of several planned between Newark, NJ, and Boston, MA. After meeting stiff community opposition at an August 10 town planning board hearing, the company withdrew its proposal. Though the local citizens are worried about the health effects of microwaves, the principal objection is to the visual "blight" caused by an 85-foot tower. ITT attorney Susan Whitman said that a new proposal is now being submitted to the Rockland County and the South Nyack planning boards....In Coventry, CT, another link in ITT's proposed network, a citizen's group is appealing that town's approval of a tower to the state's Superior Court (see *MWN*, June 1982). A trial date of October or November is expected....EPA's Paul Gailey and Richard Tell will present a paper on "Assessing the Potential Impact of Federal Radiation Safety Regulations on the FM Broadcast Service" at the 32nd annual *IEEE Broadcast Symposium,* to be held at the Washington Hotel in Washington, DC, September 16–17....The FCC, in another move toward deregulating the broadcast industry, has proposed lifting its restrictions on FM radio subcarrier use. The underused part of a station's assigned frequency band will now be available for paging services, electronic mail and other private transmissions....Citing heavy demand, the FCC has allocated eight additional frequencies in the 35 and 43 MHz bands for one-way paging systems....The fast growing subscription TV market has quadrupled in two years, to about 1.5 million viewers, with the number of stations climbing from 8 to 31. For a close look at the future of STV, see the August 16 *Broadcasting.*

Compatibility & Interference...The Bureau of Mines is continuing to sponsor research on the potential interference of low and medium frequency (30 kHz–3 MHz) radio signals, used for communications inside mines, with blasting caps. The bureau notes that "long propagation distances and the complexities of near-field radiation patterns make worst case predictions of the blasting hazard very difficult." Ramie Thompson of the Franklin Research Institute in Philadelphia, PA, will be the principal investigator for a new year-long study.... The wrangling over Radio Marti continues in Congress. Although the House passed H.R. 5427, based on the administration's proposal, by a vote of 250–134, a companion measure did not clear the Senate Foreign Relations Committee. Senator Edward Zorinsky (D-NE) succeeded in delaying the bill until after the August recess. Backstage negotiations promise to continue unabated. The National Association of Broadcasters (NAB), one of the major participants in the debate, released a study outlining the feasibility of using a broadcast frequency of 1610 kHz, which is outside the commercial AM band. That alternative or using shortwave frequencies would lessen the likelihood that Cuba would retaliate by using high-power transmitters to disrupt more than 200 AM stations. A copy of the NAB study appears in the August 10 *Congressional Record,* p. H5566....The FCC has reaffirmed its earlier ruling that its Field Operations Bureau has the authority to temporarily shut down transmitting equipment which is causing dangerous interference. CBS and NBC had asked the commission to reconsider its decision (see *MWN,* March 1982), based on an interference incident during the first flight of the Space Shuttle ....The FCC has delayed the deadline for filing comments on its proposal to reduce interference from educational FM stations until after the commission releases its report, *Options for Relief of Interference to TV Channel 6 from Educational FM Stations*....Three new FCC reports are available now: *A Computer Program for Calculating Effective Interference to TV Service* by H.K. Wong (No. OST TM 82-2), *Field Tests of 216 to 220 MHz Transmitters for Compatibility with Television Channels 13 and 10* by H. Davis (No. OST TM 82-4) and *Guidance for Evaluating the Potential for Interference to TV from Stations of Inland Waterways Communications Systems* by R. Eckert (No. OST TM 82-5). A limited number of copies of each report is available from the FCC's Office of Public Affairs, Room 207, 1919 M St., NW, Washington, DC 20554. Otherwise they can be purchased from the Downtown Copy Center, 1114 21st St., NW, Washington, DC 20037, (202) 452-1422.

Government...At its July 29 meeting, members of FMAC completed work on its statement on RF/MW safety. (See *MWN,* January/February 1982). The FMAC draft is now circulating among the ERMAC membership — many of whom have reservations about the FMAC language. ERMAC's Janet Healer said that she hoped to hold a meeting of the advisory council in September or October to finalize the joint FMAC/ERMAC statement....Although the Radiation Policy Council went out of business last September 30, at the end of the FY1981 (see *MWN,* October 1981), its official demise came this August 17. On that date, President Reagan signed Executive Order No. 12379, which reversed President Carter's Executive Order No. 12194, issued in February 1980, that originally set up the council.... The CPSC has published a consumer product safety standard for omnidirectional CB base station antennas to reduce the risk of electric shock. The commission estimates that between 1975 and 1977, the peak years for CB antenna sales, over 700 people were electrocuted while putting up or taking down communication antennas, about 60 percent of which were omnidirectional CB antennas.

Measurement....EPA is seeking a contractor to measure the radiation patterns, over 360 degrees of azimuthal rotation, for 10-foot paraboloidal, microwave dish antennas — the type used in point-to-point transmission systems and, when larger, for satellite communications. Among the models to be tested are Andrews Corp.'s dishes operating at 2, 4, 6 and 11 GHz. EPA wants to generate information on the gain in the side-lobe regions and to compare the experimentally determined patterns with those obtained from theoretical calculations. Responses to RfP CI 82-0908 were due on September 2.... The FCC has decided to shelve a proposed rule that would have required the filing of a description of measurement facilities used for the authorization testing of RF devices. The proposal would have set requirements for determining the suitability of a site by measuring open field site attenuation — that is, how much a radio signal decreases as it travels from one side of the site to the other. The principal reason for dropping the proposal is that ANSI committee C63 is now working on a voluntary standard for test sites, as is CISPR. The eighth draft of the C63 ANSI standard is now circulating among members of the C63.1 subcommittee and could come up for a vote by the full committee at a meeting on October 20. The FCC has published Bulletin OST 55, *Characteristics of Open Field Test Sites* in the *Federal Register,* (47 *FR* 36427, August 20)....NBS scientists have devised a method of estimating electromagnetic field strengths inside enclosed spaces. Mark Ma and M.G. Arthur of NBS's electromagnetic field division in Boulder, CO, explain their model and provide the relevant equations and computer programs in their report, *A Study of the Electromagnetic Fields Distribution Inside Buildings with Apertures Excited by an External Source* (NBSIR 82-1659). It is available from the National Technical Information Service, Springfield, VA 22161 for $12.00. Order No. PB 82-193418....James Oleson of the University of Arizona's Division of Radiation Oncology has devised a new probe, which can measure and map relatively intense magnetic fields of known frequency such as those associated with hyperthermia devices like the Magnetrode unit operating at 13.56 MHz. The HF probe has an accuracy of ±5 percent. See the August issue of *IEEE Transactions on Biomedical Engineering.*

Medical Applications...How do weak electromagnetic fields speed up the healing of nonunion fractures? Some new insights are provided by a team headed by Dr. Richard Luben of the University of California, Riverside, and Dr. Ross Adey of the VA Hospital at Loma Linda, CA. They examined the effects of a continuous train of single pulses at 72 Hz and of recurrent bursts of shorter pulses, repeated at a 15 Hz rate: they found no significant differences. Writing in the July issue of the *Proceedings of the NAS,* the researchers suggest that field effects are "mediated primarily at the plasma membrane of osteoblasts [bone forming cells], either by interference with hormone-receptor interactions or by blocking of receptor-cyclase coupling in the membrane."...NBS and the American Association of Physicists in Medicine have prepared the *Medical Physics Data Book,* a handbook of numerical data for practicing doctors in the operation and maintenance of equipment used for diagnosis and treatment. One of the chapters is devoted to non-ionizing radiation, including visible, MW, RF and ultrasound. It is available from the Superintendent of Documents, Government Printing Office, Washington, DC 20402 for $5.50. Order No. 003-003-02391-4....A team from the University of Illinois, Urbana, describes a minicomputer system that can control the microwave power, at 2450 MHz, to four local hyperthermia applicators in Volume 3, Number 3 of *Bioelectromagnetics.* The system

can regulate the temperature in tumors to within 0.1°C and can prevent skin burns.... Among the papers to be presented at the fourth annual meeting of the IEEE Engineering in Medicine and Biology Society, *Frontiers of Engineering in Health Care,* September 20–21 in Philadelphia, PA, are "The Human Eye in the Presence of Electromagnetic Radiation" by S.C. Gupta of the University of Roorkee, India, and "Nonlinear Electromagnetic Interaction with Living Systems" by Eldon Byrd of the Naval Surface Weapons Center in Silver Spring, MD. Immediately following that meeting, on September 22, M. Osbakken of the Pennsylvania State University Medical Center will discuss "NMR: Imaging and In Vivo Metabolism" at the *Frontiers of Computers in Medicine* meeting.

Military Systems ... The air force's over-the-horizon backscatter (OTH-B) radar, now operating as an experimental program at the Moscow AF station northwest of Bangor, ME, is going into full-scale development under a new $66.7 million contract with General Electric Co., according to an article in the August 16 *Aviation Week & Space Technology.* The experimental system uses 12 high-frequency transmitters, each rated at 100 kW average power with a multi-band array 2,265 feet long. The expansion of the present system to cover a 60-degree sector will cost about $240 million and will require the addition of 1,365 feet to the antenna. Additional land will be bought to further expand the radar system to include two additional 60-degree sectors for full 180-degree coverage of the East Coast. The system will operate in six different frequency bands between 5 and 28 MHz. *Aviation Week* notes that the AF has yet to determine the location for the West Coast OTH-B radar, and that it also plans to look for a southern site....Meanwhile, the AF's Electronic Systems Command at Hanscom AFB, MA, has identified a need for an independent verification of the OTH-B radar system's software. The system uses a real-time distributed network of 14 VAX computers.... Contract negotiations between the navy and GTE Sylvania for Project ELF are continuing. By mid-September, the company's cost proposal for upgrading the Wisconsin Test Facility, producing the Michigan transmitter and antenna and developing 20 model receivers should be submitted to the navy. A contract should be ready for signing two to four months later....On August 4, the *New York Times* reported that the development of the Stealth bomber, which is designed to escape radar detection, was three years ahead of schedule, and could be deployed by 1988. The Pentagon, however, rejected the proposal to accelerate the Stealth bomber project, favoring instead to continue funding the B-1 bomber. The first Stealth air-launched cruise missile will be ready this year, the article noted.... A House Appropriations Committee report alleges that the Ticonderoga, the first navy Aegis cruiser, is so overweight with sophisticated radar and electronic equipment that it is in danger of capsizing. DoD immediately denied the allegation....The August issue of *Defense Electronics* features a survey article "The Deadly Game: Search Radar Versus Aircraft" by Eaton Corp.'s Edwin Drogin....Satellite Systems & Technology of Falls Church, VA, is sponsoring a three-day short course on *Trends in Military Satellite Communication Systems* to be held in the Washington, DC, area October 25–27 and in the Los Angeles area November 15–17. The fee is $650. For more information, contact: SS&T, (703) 532-6274.

Ovens ... Some 250 people attended the International Microwave Power Institute's (IMPI) 17th annual meeting in San Diego, CA, at the end of July. About 200 of them were from IMPI's Cooking Appliance Section (CAS), and there were papers on a host of issues, including the much discussed warnings about the risks of cooking pork —or rather its incomplete cooking—in a microwave oven. The proceedings of the meeting have not been assembled this year. According to IMPI Executive Director Dan Lynch, a committee, chaired by Walter Wyslouzil of the National Research Council of Canada in Ottawa, is in the process of deciding how to disseminate the papers. Abstracts of the papers are in the July-August issue of *Microwave World,* the CAS bimonthly newsletter. Some of the papers on CAS-related topics will appear in future issues of that newsletter....On October 8, IMPI will sponsor a one-day seminar on *The Microwave Oven Industry: Research, Trends and Changes* at the Marriott's Tan-Tar-A Resort & Golf Club at Osage Beach, MO. The registration fee is $45. For more information, contact CAS at IMPI headquarters in Vienna, VA, (703) 281-1515.... In the June issue of the *Journal of Microwave Power,* Robert Decareau of the US Army Natick R&D Food Engineering Lab in Massachusetts describes the lab's work on applying microwave energy to food processing, with special attention on freeze-drying and in-pouch sterilization....The controversy over minimum energy efficiency standards for appliances, including microwave ovens, has died down. Meanwhile, DOE is negotiating a contract with Arthur D. Little of Cambridge, MA, for a technical and economic analysis of such standards....The head of the IRS is putting a microwave cooking center into his office. The August 11 *Washington Post* reports that IRS Commissioner Roscoe Egger Jr. wanted a bigger kitchen to make meals for himself and official visitors....Shipments of microwave ovens continued to be slower than last year: a 10 percent decline in July 1982 compared to July 1981. Nevertheless, according to statistics compiled by the Association of Home Appliance Manufacturers, the 331,000 ovens shipped in July represented the second highest for any July in history—exceeded only by last year....See also Standards Update below.

Power Lines...A draft report on the health effects of high power DC lines is scheduled for release early this September by a scientific advisory panel of the Minnesota Environmental Quality Board. The board will use the final report, due in early November, and two other state studies now underway to reevaluate its power line siting and operating permit requirements....See also Bioeffects Update above.... DOE has published *Biological Effects of High-Strength Electric Fields on Small Laboratory Animals* (No. DE 82002426), an interim report on research done at the Pacific Northwest Laboratory in Richland, WA, from October 1, 1979 to March 31, 1981. Though dated July 1981, the report was only released this August. Copies are available from the National Technical Information Service, Springfield, VA 22161.

Standards...The Committee on Electrical Approvals Standards of the Standards Association of Australia has drafted a proposed standard for microwave leakage detectors for household use. For more information contact the association at 80 Arthur Street, North Sydney, Australia....The August issue of the *IEEE Spectrum* reviews the recent Supreme Court ruling against the ASME, which could have a profound impact on voluntary standard-setting organizations. (See *MWN,* June 1982.)...The IEEE reports that one positive side effect of the ASME decision is that the FTC may now decide to drop any plans to regulate standard-setting bodies....The International Electrotechnical Commission (IEC) has published a number of standards (IEC-487-2-1, 487-2-2, 487-3-2 and 487-3-3, all 1981) on methods of measurement for equipment used in radio-relay systems. And the IEC's International Special Committee on Radio Interference (CISPR) has published CISPR-15-1981 on the limits and methods of measuring RFI characteristics of fluorescent lamps and CISPR 17-1981 on ways of measuring the suppression characteristics of passive radio interference filters and components. For more information contact ANSI's sales office, 1430 Broadway, New York, NY 10018, (212) 354-3300.

VDTs...The Ontario Public Service Employees Union (OPSEU) has won major concessions for VDT workers in its new contract with the Ontario government. The new rules include eye examinations when workers are assigned to VDTs with follow-up exams every six months, ten-minute breaks for every hour of continuous VDT work and alternative jobs for pregnant operators upon request. Women who request the change would be paid at the wage rate of the interim job. The union's Bob DeMatteo called the agreement "a breakthrough" but said the union intends to seek clarification on the potential loss in earnings because it conflicts with another agreement. According to their present contract, OPSEU members cannot lose pay when transferred because of a health problem....The management of the *Toronto Star* and officials of the Newspaper Guild have agreed that an investigation into the 1980 cluster of infants with birth defects born to *Star* workers is no longer possible. On July 29 the paper reported that only one of the four women involved would participate in a long-awaited, independent study....A Canadian report released early this year concludes that VDTs do not pose radiation hazards but, "The effect of static electric fields at the VDT work-

station requires further investigation." *Review of Health and Safety Aspects of Video Display Terminals,* CRC Technical Note No. 712-E, was published by the Communications Research Center of the federal government's Department of Communications in Ottawa .... National Public Radio's report on VDTs and pregnancy problems, aired on *All Things Considered* on August 4, has generated an unusual amount of listener interest. A transcript of the report is available for $1 and a cassette is $15 from Audience Services, NPR, 2025 M Street, NW, Washington, DC 20036....T.K. Daneshmend and M.J. Campbell, at the Frenchay Hospital in Bristol, UK, have proposed "electronic space war video game epilepsy" as a special category of photoconvulsive epilepsy. In the June 12 *British Medical Journal,* they describe the case of a 17-year-old girl who had an epileptic fit while playing Dark Warrior. In a previous case reported by Dr. D.N. Rushon in the February 28, 1981 *Lancet,* a 17-year-old boy had a grand-mal seizure while playing Astro Fighter. The games' bright flashing lights are thought to cause the seizures in certain individuals. ...A number of European experts will participate in the *International Conference on Office Work's New Technology* October 28-29 in Boston, MA. For details, contact Working Women Educational Fund, 1224 Huron Road, Cleveland, OH 44115, (216) 566-9308....Vincent E. Guiliano of Arthur D. Little expects that 40 to 50 percent of all US workers will use VDTs daily by 1990. Guiliano examines the changes brought by the information age in "The Mechanization of Office Work," which appears in the September *Scientific American.*

ANSI *(continued from p. 1)*

The new standard was not approved unanimously. Dissenting votes were cast by Leo Birenbaum of the Polytechnic Institute of New York, Allan Eckhaus of Consumers Union and Howard Johnson of RCA, representing the Electronic Industries Association. Persons objecting to the standard have the right to appeal, but all three parties told *Microwave News* that they did not intend to do so. David Janes of the Environmental Protection Agency (EPA) abstained from voting on the proposal.

A major bone of contention within the committee was whether the standard should apply to general public as well as to occupational exposures. At one point in the negotiations, for instance, BRH refused to approve the standard without cautionary language, leading to the following compromise sentence: "Because of the limitations of the biological effects data base, these guides are offered as upper limits of exposure, particularly for the population at large."

RCA's Howard Johnson objected to a voluntary group setting a public health standard, maintaining that the job should be done by the federal government. (Johnson retired this spring.) George Kiessling, RCA's director of product safety, echoing Johnson's concerns, said that, "We still need a federal standard; given the recent actions of Multnomah County and Massachusetts, it will be a free for all until the government acts." Multnomah has set and Massachusetts has proposed population standards with limits as low as 200 uW/cm^2 — a factor of five lower than ANSI's. (See *MWN,* July/August and March 1982.)

Both the EPA and the Occupational Safety and Health Administration (OSHA) are scheduled to release advanced notices of proposed rulemaking on RF/MW radiation this September. EPA is working on a guidance for population exposures and OSHA is developing a new occupational standard to replace its now deleted 10 mW/cm^2 advisory standard —which was based on the original ANSI standard.

Other points of disagreement included the six-minute averaging time for measuring exposures, the exclusion from the standard of devices with an input power of seven watts or less and the absence of criteria for exposures to pulsed radiation and for partial body exposures.

One indication of the difficulties in reaching consensus is that Guy submitted his resignation as chairman of the subcommittee (C95.IV) drafting the revisions on August 20, 1980 —to take effect as soon as the standard was approved. Guy is the director of the Bioelectromagnetics Research Laboratory at the University of Washington, Seattle.

Dr. F. Kristian Storm, an associate professor of surgery and oncology at the UCLA School of Medicine will now take over the chairmanship of the subcommittee. In a telephone interview, Storm said that he had several thoughts about how to improve the organization of the subcommittee. He cited one example: bringing more physicians and biological scientists into the evaluation process.

According to ANSI rules, all standards must be reevaluated every five years. The original 10 mW/cm^2 standard, for all frequencies between 10 MHz and 100 GHz, was adopted in 1966 and reaffirmed in 1974. Given the length of time revisions have taken, Rosenthal, a professor of electrical engineering at the Polytechnic Institute of New York, said "I am glad the standard is out but now it's time to start again."

In other standard setting news, the American Conference of Governmental Industrial Hygienists has proposed modifications to their standard, which is similar to ANSI's. (See *MWN,* July/August 1982.) And the Department of Defense (DoD) is reviewing its RF/MW standards. Although the DoD review is not yet complete, participants from the three services —army, navy and air force—are in general agreement with the ANSI revision. (See *MWN,* May 1982.)

RFI Standards *(continued from p. 1)*

set RFI regulations, stating that "the exclusive jurisdiction over RFI incidents (including pre-emption of state and local regulations of such phenomena) lies with the FCC."

In its section-by-section analysis of the amendments, the conferees grant the commission the discretion of not setting specific standards. Warning labels are cited as a possible alternative. But they are clear on their objective: "The conferees expect the number of interference complaints recorded and investigated by the commission to be significantly reduced."

Any FCC rules would apply to all electronic equipment designed for home use, even though it might be used outside the home. Thus, the conferees make specific reference to portable radios and televisions. Devices for business and office use are exempt.

In prohibiting local RFI standards, the conferees state that "radio transmitter operators should not be subject to fines, forfeitures or other liability" by state and local governments as a result of RFI to home electronic equipment.

The authority to set RFI standards was originally contained in S. 929, sponsored by Senator Goldwater (R-AZ) and in H.R. 5008 sponsored by Congressmen Timothy Wirth (D-CO) and Allan Swift (D-WA). The House-Senate Conference resolved the differences between the two bills.

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