



Site Development
Washington/Baltimore

Sprint PCS
6905 Rockledge Drive
Bethesda, MD 20817
Voice 301-214-9200
Fax 301-571-4158

VIA CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 15, 2001
Mr. Reggie Nixon
Dept. of Community Planning, Housing and Development
#1 Courthouse Plaza
2100 Clarendon Blvd, Suite 608
Arlington, Virginia 22201

Re: Deed of Lease dated 2/25/98 between the County Board of Arlington County Virginia and APC Realty and Equipment Co. for the lease of the Lee Pumping Station water tank (DC03XC179).

Dear Mr. Nixon:

Enclosed please find the 2001 Report on Measurements of Radio-Frequency Fields made on behalf of Sprint PCS in the vicinity of Lee Pumping Station, Arlington, Virginia.

If you have any questions or concerns, please call me at 301-214-9234.

Sincerely,

Greg Soule.
Property Specialist

Cc; Mr. James Smerchansky, Old Dominion Civic Association
Mr. Peter Fallon, Donaldson Run Civic Association
Mr. Steve Souder, Arl. Co. Emergency Comm. Center
Mr. Terry Russell, Zoning Administrator

Jules Cohen, P.E.
Consulting Engineer

**ENGINEERING REPORT
2001 MEASUREMENTS OF RADIO-FREQUENCY FIELDS
MADE ON BEHALF OF SPRINT PCS
IN VICINITY OF LEE PUMPING STATION, ARLINGTON, VIRGINIA**

At the request of Sprint PCS, measurements were made on Wednesday, March 14, 2001, of the levels of radio-frequency ("RF") power density in the vicinity of the Lee Pumping Station, Arlington, Virginia. This report describes the measurements made and the results obtained.

The measurements of power density were begun at 9:00 a.m. and continued for approximately an hour and a half. A determination was first made that the PCS transmitters, feeding energy to the antennas mounted on the catwalk railing of the water tower, were operating at their normal output. The measurements were conducted using a Narda, Model 8718 (S/N 1155) meter with a Model B8742D (S/N 01004) probe last calibrated by the manufacturer on April 29, 1999, and periodically checked for continued accuracy. The Model B8742D probe covers the entire RF spectrum from 300 kHz to 3.0 GHz (3,000 MHz). The probe has a shaped response providing an output permitting the meter to read in terms of percent of the Federal Communications Commission's 1997 standard for the general population/uncontrolled environment.

A feature of the Narda meter is a built-in power source that permits checking the several elements making up the probe. To provide uniform pickup in all directions, the probe includes three, orthogonally arranged antennas, the outputs of which are added. The normal operation of each of the three arms can be confirmed. This was done prior to use of the meter and probe for measurement purposes. The meter was also "zeroed" following the procedure prescribed by the manufacturer. Another feature of the meter that was employed

is the retention of the maximum reading during any reading cycle at a location.

The exposure standard is based on whole body average; therefore a scan is made that approximates the cross section of the body and the average noted. For the purpose of this study, the maximum reading during each scan was recorded also. Both average and peak are included in the results shown.

Measurements were made just outside the pumping station fence and in the streets including 24th, 25th, Wakefield, Vernon, Woodrow and Wakefield Court. Results are included in the tabulation on the following page.

As shown in the tabulation, the total RF power density from the Sprint PCS transmission plus all other emission sources within the range of frequencies from 300 kHz to 3 GHz is substantially below the exposure permitted by the Federal Communications Commission for the uncontrolled (general population) environment.

The exposures measured show a high degree of variability. That variability (and magnitude) is a function of shielding provided by terrain and by the changes in usage of paging and land mobile transmitters sharing the Lee Pumping Station site. The Personal Communications Service transmitters' contribution to the total is of a minor nature. The magnitude of RF exposure measured this year is lower than that measured in 2000. Usage of land mobile transmitters, unlike that of Sprint PCS, is highly variable and is likely to account for the variability noted since the several measurements were made at approximately the same time of year, thus avoiding likely effects from foliage.

Jules Cohen, P.E.
Consulting Engineer

Engineering Report
Measurements at Lee Pumping Station

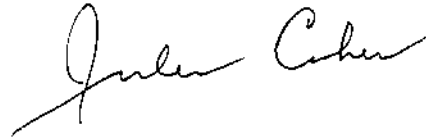
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Location	Average % of Standard	Peak % of Standard
At Pumping Station Fence Gate	2.21	2.4
Road Alongside Fence	2.43	3.0
24th and N. Wakefield	1.89	2.4
2245 N. Vernon	3.18	3.9
2336 N. Vernon	2.49	2.7
2355 N. Vernon	2.41	2.7
4409 25th North	2.34	3.3
4415 25th North	1.93	2.2
4427 25th North	2.25	2.7
2425 N. Woodrow	2.38	2.7
23rd St. and N. Wakefield	4.68	7.6
23rd Rd. and N. Wakefield	2.23	2.4
24th and N. Wakefield Ct.	2.14	2.3
2455 N. Wakefield Ct.	2.19	2.4
2471 N. Wakefield Ct.	2.29	2.5
4631 24th North	2.43	2.8
4651 24th North	2.32	2.7
Entrance to Missionhurst	2.26	2.6
4710 25th North	1.53	1.8

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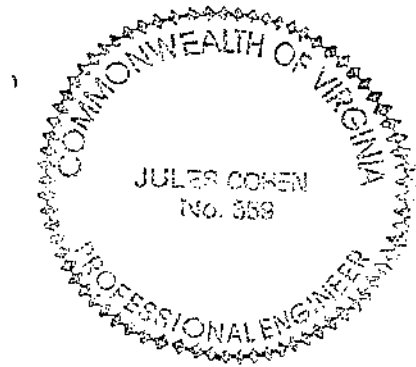
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Jules Cohen, P.E.
Va. Cert. No. 359

March 24, 2001



Jules Cohen, P.E.
Consulting Engineer

PROFESSIONAL BACKGROUND OF JULES COHEN

Jules Cohen received the degree of Bachelor of Science in Electrical Engineering from the University of Washington (Seattle) in 1938. His first professional experience was with consulting engineering firms in the City of Seattle, then with the Bonneville Power Administration, a division of the U.S. Department of the Interior, where he served as a junior engineer and assistant engineer in the substation design section. He was commissioned in the Navy in May of 1942 and served for three and one-half years as a naval officer during World War II. His duties included training at Harvard, at MIT and at the Naval Air Technical Training Center in Corpus Christi. He was a project officer on radar beacons at the Radiation Laboratory at MIT, then at the Bureau of Ships. Under the Commander, Service Forces, Pacific Fleet, he was in responsible charge of the radar beacon program for the Pacific Fleet. His last duty station in the Navy was as Executive Officer of the Electronics Division, Commander Service Forces, Pacific Fleet.

Following release from the Navy, he entered the field of consulting engineering and has been so engaged for 55 years. During 49 of those 55 years, he has been either a sole principal, partner or officer in a consulting engineering firm. He has been licensed to practice as a professional engineer in the District of Columbia since 1952, and has been licensed to practice as a certified professional engineer in the Commonwealth of Virginia since 1954. During the period of his professional practice, he has provided professional engineering services in the field of broadcasting in particular, and communications in general. During the past 25 years of his practice, an important aspect of his work has been the analysis by calculations and measurements of radio-frequency exposure. On January 1, 1988, he retired from the presidency of Jules Cohen & Associates, P.C., but has continued providing professional consulting services to selected clients.

Over 10,000 projects of varying levels of complexity have been carried out by the engineering firm of which he was a either sole member, partner or officer. Work performed has included radio-frequency propagation studies, interference studies, frequency allocation surveys, radiation hazard evaluations, standard broadcast directional antenna design and adjustment, AM, FM and TV field strength measurements, television picture quality assessment, satellite earth station studies, the planning and placement of cellular and other communications structures, studio and transmitting plant layouts for both radio and television, equipment evaluation, and extensive work involving the engineering aspects of changes in the rules of the Federal Communications Commission (FCC).

He was the author of Appendix C of the 1975 Cable Television Advisory Committee Panel II report to the FCC. That appendix dealt with the problem of echoes in television systems. He is also the author of the section on low power television in the 1986 edition of the McGraw-Hill Encyclopedia of Science and Technology. He was co-author of Section 2.9, Human Exposure to RF Radiation in the Eighth Edition of the National Association of Broadcasters Engineering Handbook. As chairman of the engineering committee concerned with interference to television broadcasting from noncommercial FM stations, he played a major role in the development of the rules adopted by the FCC governing the assignment of FM stations in the frequency band from 88.1 to 91.9 MHz. He represented television broadcast interests as co-chairman of the Technical Analysis Working Group of the Land Mobile Radio/UHF Television Technical Advisory Committee.

From the time of its inception in 1983 to 1996, Jules Cohen represented the members of the Association of Maximum Service Television, Inc. (MSTV) in subcommittees and technical groups of the Advanced Television Systems Committee (ATSC). From 1996 to September 1998, he represented the IEEE on the Executive Committee of the ATSC. He has participated as a member, co-chairman or vice

chairman of a number of ATSC Technical Groups. As stated in its Charter, the purpose of the ATSC "[Is] to explore the need for and, where appropriate, to coordinate development of voluntary national technical standards for Advanced Television Systems."

His participation in the work of the Advisory Committee on Advanced Television Service (ACATS) began in November 1987, the starting date set by the FCC, and continued until the completion of the Advisory Committee's work in November, 1995. He was a member of Working Parties 1 and 2 of the Systems Subcommittee (SS/WP-1 and 2), and Working Parties 3, 4 and 6 of the Planning Subcommittee (PS/WP-3, 4 and 6). Under SS/WP-2 he chaired the Field Testing Task Force. That Task Force completed field testing of the Grand Alliance Digital Television System in October, 1995. Mr. Cohen had a major role in preparing both the specifications for the field testing and preparation of the report following field testing. Under PS/WP-3, he chaired the Spectrum Analysis Working Group.

Clients have included: all five of the major television networks (ABC, CBS, NBC, Fox and PBS), the National Association of Broadcasters (NAB), MSTV, the Electronic Industry Association, major group owners of radio and television stations, individual radio and television stations, and Cellular System and Personal Communications System providers. He has also provided engineering services to community and citizen groups relative to the placement of broadcast and wireless communications facilities.

For more than twenty-five years, he has worked extensively in the field of nonionizing radiation effects. He has done research in the scientific literature devoted to the subject, participated in the Bioelectromagnetics Society Symposia held yearly from 1979 through 1995, as well as in 1998, 1999 and 2000, completed courses in Hazardous Electromagnetic Radiation offered by George Washington University, the Management of Electromagnetic Energy Hazards offered by Cook College, Rutgers University, and Electric and Magnetic Field Health Research: Assessing the Science, offered by the Harvard University School of Public Health, attended meetings of the Electromagnetic Radiation Management Advisory Council, participated in Michaelson Research Conferences in 1994, 1995, 1997, 1998, 1999 and 2000, moderated panels on the Biological Effects of Nonionizing Radiation at the 1979, 1983 and 1988 annual conventions of the NAB, delivered invited papers on the Biological Effects of Nonionizing Radiation in the 1979, 1984 and 1993 meetings of the Broadcast Technology Society of the IEEE, and, by invitation, provided a critique of the first and second 1979 drafts and the 1985 draft of a RF/Microwave Criteria document of the National Institute for Occupational Safety and Health (NIOSH).

He was a member of American National Standards Institute (ANSI) Committee C95 that developed the 1982 ANSI Standard C95.1-1982 Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 300 kHz to 100 GHz. He is a member of the IEEE Standards Coordinating Committee 28 (SCC 28) and Subcommittee IV, which completed a revision to ANSI Standard C95.1-1982, now identified as IEEE C95.1-1999. Subcommittee IV is continuing evaluation of scientific literature for possible further updating of the standard. He is a member of SCC 28 Subcommittee I that developed IEEE Standard C95.3-1991, IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave. (That standard is also in the process of revision.) He is a member of the IEEE Committee on Man and Radiation (COMAR). He is also a member of Committee 89-2 of the National Council on Radiation Protection and Measurements (NCRP). Committee 89-2 has prepared Report No. 119 A Practical Guide to the Determination of Human Exposure to Radiofrequency Fields. Under contract to the NAB, he prepared a suggested revision to FCC OST Bulletin No. 65, taking into account the ANSI/IEEE 1992 exposure guide.

He has made RF exposure measurements at both the World Trade Center and Empire State Building in New York City and at the John Hancock Building in Chicago. Over the past twenty years, he has also made RF exposure measurements at numerous locations on behalf of broadcast station licensees, cell phone operators, and a satellite station operator.

He has been qualified as an expert witness in Federal Courts, other courts, local boards and councils, and in hearings before the FCC and FAA. Most recently, his expert testimony was accepted in

the United States District Court for the Southern District of Florida in the matter of CBS, Inc. et al v. PrimeTime 24 Joint Venture, C.A. No. 96-3650-CIV-Nesbitt.

He is a member of Tau Beta Pi, engineering scholastic honorary, a member of the National Society of Professional Engineers, a Life Fellow of the Institute of Electrical and Electronics Engineers (IEEE), a Life Fellow of the Society of Motion Picture and Television Engineers (SMPTE), a charter member of the Bioelectromagnetics Society, a past president of the Association of Federal Communications Engineers and former chairman of that association's Radiation Hazard Subcommittee. He was selected for the 1988 NAB Engineering Achievement Award, a 1990 Achievement Award of the Broadcast Pioneers Washington, DC chapter and a 1999 award from the IEEE Broadcast Technology Society for a lifetime of service to the broadcasting industry and to the Society. During the year 2000 convention of the NAB, he received a further award from the NAB engineers for his over fifty years of service to the broadcast community and a Pioneers award from the Broadcasters' Foundation.

January 28, 2001