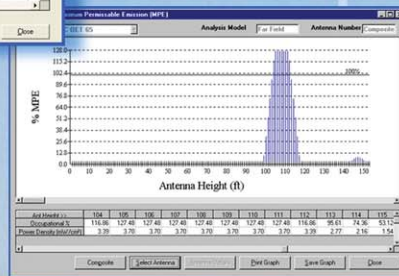
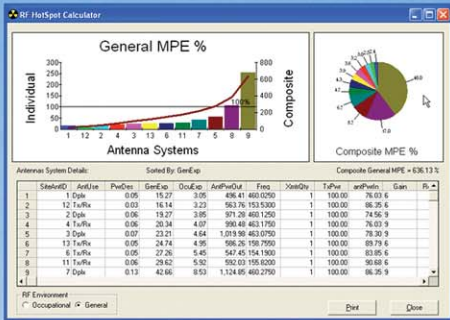


# RF INTERFERENCE AND EMISSIONS TESTING

## SYSTEMS CONSULTING

With the advent of changes in the Code of Federal Regulations, licensees of most radio systems are required to develop a coherent plan for protecting the general population as well as workers who are exposed to radio frequency emissions. The FCC has identified specific limits of exposure in controlled and uncontrolled environments and has mandated that every operator of RF transmission equipment determine and identify potential hazards.



## Mathematical Assessments

Field strength calculations provide an estimate of emissions produced by an RF radiating source, which is useful for "far-field" analyses but less effective for "near-field" areas. Calculations provide sufficient accuracy in far-field scenarios; however, near-field areas are of paramount concern since human exposure to emissions posing significant health risks occur there more frequently. Several factors, such as power level, frequency, antenna geometry, modulation, polarization, and others, contribute to RF radiation levels. Since many of these characteristics are approximated in performing calculated analyses, exposure levels determined using computer modeling or mathematical analyses serve principally as starting points when assessing risk.

## Emissions Measurements

There is no substitute for accurate on-site RF radiation measurement surveys. RCC provides trained, skilled field engineers to take on-site measurements in order to develop an empirical understanding of the radiation environment. A survey should be performed to develop a specific near-field baseline for every facility. Whenever changes are made to the RF environment, the survey must be reviewed and updated.

## Services & Solutions Industry Leader

With the explosive growth of the wireless world, there is a growing health concern with respect to RF emissions. Towers and antennas are being installed at rapid rates and in many instances, in locations where people work, live and play.

RCC Consultants Inc. has been providing the wireless industry with high caliber consulting and engineering services since 1983. These services include needs analysis, network planning and design, specification development, procurement assistance, project management, system integration, quality assurance, and system test and acceptance. RCC personnel have been trained by the NARDA Division of Lockheed Martin Microwave.

RCC also provides specialized engineering survey and assessment services in the areas of:

- Emissions Measurements
- Environmental Assessments
- FCC Compliance Analyses
- Safety and Risk Management



# RCC Services

Rapidly changing economic conditions and increasing citizen demand for easier access and improved service is driving governments and emergency service agencies to embrace the opportunities made possible by computer and communications system technologies. RCC's innovative consulting and solid engineering services cover every aspect of emergency services from national through state/provincial and local governments.

We help government embrace the opportunities made possible by today's technologies. RCC is uniquely qualified to assist our government clients in improving information and communications system technology thereby improving efficiencies and service to its citizens. As a recognized industry leader, RCC brings a depth of experience in the following areas:

- **RF ENVIRONMENTAL BASELINE TESTING**
- **RECEIVER DESENSITIZATION ANALYSIS**
- **ENVIRONMENTAL ASSESSMENTS**
- **INTERMODULATION ANALYSIS**
- **INTERFERENCE RESOLUTION**
- **EMISSIONS MEASUREMENT**
- **FCC COMPLIANCE ANALYSIS**
- **SAFETY & RISK MANAGEMENT**



[www.rcc.com](http://www.rcc.com)  
[info@rcc.com](mailto:info@rcc.com)

**U.S. Headquarters**  
RCC Consultants Inc.  
100 Woodbridge Center Drive  
Woodbridge, New Jersey 07095  
toll-free 800.247.4796  
tel +1.732.404.2400  
fax +1.732.404.2556

# Distinguishing Qualities

**A number of key qualities distinguish RCC from other consultancies. Among these are:**

**Industry Focus** - The vast majority of RCC's clients are healthcare, EMS, higher education, state, and local governments. Many of RCC's consultants and engineers, including our company president, once held important positions in public safety, as well as state and local government. Through on-going professional engagements, as well as the practical experience of consultants and engineers, members of RCC have an unparalleled understanding of government and the administrative requirements needed to complete engagements appropriately.

**Broad-based Experience** - Many of RCC's consultants and engineers travel throughout the United States in support of clients. Through exposure to many different issues in varied areas of the country, RCC's staff members face myriad issues and develop innovative and appropriate solutions to problems. Due to RCC's nationwide presence, the best practices developed for governmental entities from throughout the United States are shared with its clients.

**Professional Versatility** - Some consultant organizations only work in one area of technical competency. RCC's clients often engage the company to address a wide variety of challenges often exposing staff to myriad solutions. From a broad base of professional experience, RCC's consultants and engineers typically work with a variety of technologies often permitting staff members to identify multiple options for clients.

**Client Focused** - RCC recognizes that many clients and their projects are within the public domain and subject to public review and comment. As such, RCC's consultants and engineers work not only to address and solve problems, but also to complete engagements utilizing the most appropriate strategies for the client.

**Neutral and Independent** - RCC Consultants, Inc. is completely neutral, independent, and focused solely on providing best outcome services for our clients. While consultants and engineers participate in some industry learning programs sponsored by manufacturers and service providers, the involvement of RCC staff members is to learn about products and services on behalf of clients. RCC's number one and uncompromising focus is our clients.