

## Appendices

### A. States with Their Own RF Requirements - Examples

#### Alaska's Permissible Exposure Limits

The State of Alaska's permissible exposure limit is specified in Article I of Subchapter 4, Occupational Health and Environmental Control Code [04.0106(a)], Alaska Occupational Safety and Health Standards. For normal environmental conditions and for incident electromagnetic energy of frequencies from 10 MHz to 100 GHz, the radiation protection guide is 10 mW/cm (milliwatts per square centimeter) as averaged over any possible six-minute period.

Further information can be obtained from the Alaska Department of Labor, Occupational Safety and Health Section.

*Source: Physical Agent Data Sheet (PADS) - Radio Frequency/Microwave Radiation. accessed August 4, 2016. <http://labor.state.ak.us/lss/pads/radio.htm>*

#### California's General Industry Standard

California's general industry standard (Subchapter 7 – General Industry Safety Orders, Group 14, Article 104) applies to devices with frequencies between three MegaHertz and 300 GigaHertz, includes exposure limits, requires warning signs described in the IEEE-ANSI voluntary standard, and specifies that the signs have to be legible at a distance of 32 feet when radiation levels may be in excess of the exposure limits.

*Source: CCR, Title 8, Section 5085, Subchapter 7, Group 14, Article 104 – Nonionizing Radiation - §5085. Radiofrequency and Microwave Radiation. accessed April 28, 2016. <https://www.dir.ca.gov/title8/5085.html>*

#### Minnesota's Employee Right-to-Know Act

Minnesota's requirements are covered by its Employee Right-to-Know Act. Although Minnesota OSHA stopped using the Act for hazardous chemicals when it adopted OSHA's standard (1910.1200), it has continued to use the Act for non-ionizing radiation. It requires employers to identify sources of non-ionizing radiation and provide their employees, who have a reasonable potential for exposure during the normal course of their work, with information and training to employees with a "reasonable potential" for exposure "during the normal course of the employees' work assignment. The Act specifies that the training must cover:

- Identifying sources
- Exposure limits
- Health effects
- Emergency procedures
- Safety procedures
- Control measures
- Personal protective equipment

#### Sources:

- Minnesota OSHA - Employee Right-to-Know on construction sites, accessed April 28, 2016. [http://www.dli.mn.gov/osha/PDF/ertk\\_construct.pdf](http://www.dli.mn.gov/osha/PDF/ertk_construct.pdf)
- Minnesota OSHA - Safety Lines, accessed April 28, 2016. [http://www.dli.mn.gov/OSHA/PDF/76\\_0712sl.pdf](http://www.dli.mn.gov/OSHA/PDF/76_0712sl.pdf)

### The Commonwealth of Virginia Radio Frequency Radiation Exposure Compliance Plan

In Virginia, the state's Department of Information Technology developed the Commonwealth of Virginia Radio Frequency Radiation Exposure Compliance Plan to ensure that all radio-transmitting sites that the Commonwealth of Virginia owns, manages, or has transmitting equipment located at comply with the FCC requirements.

This Compliance Plan requires:

- The identification of problem areas
- Establishment of safety zones
- Training
- Use of signs
- Personal monitors
- Use of safety procedures including, deactivating antennas, using lockout/tagout procedures, use of RF protective clothing, personal monitoring devices etc.
- Taking steps to mitigate exposures such as relocating the antennas
- Designating a site safety officer to ensure compliance

This document states that “Unless a worker has direct knowledge that an antenna is either a receive antenna or has been deactivated, the worker should consider antennas to be active and energized.”

#### Sources:

- *Commonwealth of Virginia RF Radiation Exposure Compliance Plan for Building- and Tower-based Antenna Sites, Mobiles and Maintenance*, accessed April 28, 2016. [http://vita.virginia.gov/uploadedfiles/VITA\\_Main\\_Public/Library/PSGs/RF\\_Radiation\\_Human\\_Exposure\\_Compliance\\_Plan.pdf](http://vita.virginia.gov/uploadedfiles/VITA_Main_Public/Library/PSGs/RF_Radiation_Human_Exposure_Compliance_Plan.pdf)
- *Virginia Information Technologies Agency - Non-ITRM Policies, Standards and Guidelines*, accessed April 28, 2016. <http://vita.virginia.gov/default.aspx?id=5520>
- *DTP ALERT Radio Frequency Exposure*, accessed April 28, 2016. *Guidelines* [http://vita.virginia.gov/uploadedfiles/VITA\\_Main\\_Public/Library/PSGs/Alert-RadioFreqExposureGuidelines.pdf](http://vita.virginia.gov/uploadedfiles/VITA_Main_Public/Library/PSGs/Alert-RadioFreqExposureGuidelines.pdf)