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RFR Fines Can Burn You

use of the higher occupational limits. The FCC requires that only workers that are *fully aware* and *able to exercise control* over their exposure can be exposed to levels above the public MPE limit.

To be fully aware, workers must have received both verbal and written instruction in RF safety that includes information on a variety of topics. To be able to exercise control over their exposure, they need to understand how to use time aver-

public limit. Two FM stations and a UHF TV station were cited with contributing energy levels in the range of 10 to 13 percent.

All four licensees received \$10,000 fines and appeals by three of the stations were denied.

A more recent case involves a two-level roof on a tall office building in Tampa. The FCC cited, "Accordingly, we believe a significant upward adjustment

This is the third in a new series of Q&As with Richard Strickland about RF safety. Past questions are archived at radioworld.com.

Question: What are typical RFR fines and what recent trends do you see?

Answer: The FCC started out by using \$10,000 for virtually all RF radiation-related fines, and all of the NALs (Notice of Apparent Liability for Forfeiture) were directed at individual licensees.

To my knowledge, every one of the NALs issued to date has been directed at a broadcaster — AM, FM, and television stations have all received NALs for RFR violations.

NALs have been issued for exceeding both of the FCC's exposure limits. The FCC's higher limits are referred to as the Maximum Permissible Exposure (MPE) limits for Occupational/Controlled (occupational) exposure. The MPE limits for General Population/Uncontrolled (public) exposure are set at one-fifth the field level above 3 MHz. The MPE limits are the same at frequencies below 1,340 kHz.

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aging and RF hazard protection equipment such as RF personal monitors and RF protective garments.

There have been two relatively recent cases where the FCC has gotten away from fining individual stations \$10,000.

In late 2004 the FCC issued NALs to four broadcasters operating at the big antenna farm on Mt. Wilson northeast of Los Angeles for each exceeding 5 percent of the public limit in an area that the FCC determined had a total field level of 160 percent of the public limit.

Although some 22 stations contributed significant amounts of energy to the spot of the violation, the FCC exercised the commission's "5 percent rule" for the first time. The FCC inspectors decided to use 10 percent as the criterion so that it could claim that measurement uncertainty was not an issue.

One FM station was cited for contributing roughly half of the total amount of energy, i.e. about 80 percent of the

of the base forfeiture amount is warranted." The TV station was fined \$25,000 for exceeding both occupational and public MPE limits in different parts of the two roof areas.

In addition, enforcing its 5 percent rule, one of the two FM stations operating on the same rooftop was fined \$20,000 for contributing about 70 percent of the public MPE limit to the area of the violation. Although the FM station was contributing only about 5 percent of the amount of energy as the TV station, its fine was 80 percent of the record-setting fine issued to the TV station and twice the amount of all previous RFR fines!

Richard Strickland has presented more than 150 public and private seminars on RF radiation safety and has written numerous articles on this topic. Spotlight on RF Safety appears regularly in Radio World. E-mail questions or suggestions to the author at rstrick@rfsafety-solutions.com.