

DESCRIPTION OF PROGRAM

Safety Tech Industries ("STI") is developing a low power communications device designed to be utilized by Fire Service and other similar public safety personnel outfitted in protective clothing with self-contained breathing apparatus. The system is designed to enable the members of such public safety response teams to communicate with one another and for personnel accountability reporting ("on-scene/PAR system").

The STI on-scene/PAR system will enhance firefighter safety in a number of ways. The device will enable personnel on the fireground to communicate with each other. The device also will contain monitoring equipment for functions such as heat and a motion sensor designed to provide an alarm signal if the firefighter is downed on the fireground. The device further will both permit communication between the users and the on-scene command center, and provide reporting to the command center of the functions being monitored as well as inactivity by the user as reported by the motion sensor. To assist search and rescue under the latter conditions, the command center will be able to activate a homing signal to permit rapid location of the fallen firefighter. The device will operate with a power level not to exceed two watts in order to restrict communications to the fireground, and further to permit reuse of frequencies. A more complete description of the system is appended to the STI Petition for Reconsideration submitted on December 2, 1998 in WT Docket No. 96-86.

STI has identified the new public safety frequency allocation at 764-776 MHz/ 794-806 MHz as an ideal frequency home for the on-scene/PAR system. Upon clearance of UHF television operations, the frequency band will not be encumbered by other users. STI has petitioned for reconsideration in the public safety rulemaking Docket No. 96-86 seeking a frequency set-aside for low power on-scene/PAR systems. That petition seeks both designation and protection of a block of frequencies to enable the on-scene/PAR systems to operate without threat of harmful interference from other users of the frequency band and also changes in the technical requirements adopted for that band to accommodate these systems.

Pending amendment of the regulations to provide a suitable home for the on-scene/PAR systems, and continuing even subsequently, Safety Tech requires license authority from the Commission for the following reasons:

- (i) develop and test the STI on-scene/PAR system;
- (ii) demonstrate the STI on-scene/PAR system to the user community in solicitation of feedback as to system use, characteristics and functions;
- (iii) following Commission adoption of modifications to the regulations governing public safety operations in the 764-776/794-806 MHz band, demonstrate the STI system to prospective customers; and
- (iv) limited market studies, including potentially placing units in the hands of prospective customers for limited periods of time for field testing.

As set forth in the application, the on-scene/PAR systems will operate at a power level not to exceed two watts. The power utilized for communications

between and among on-scene crew members will be substantially less, in the range of 1-5 milliwatts, intended to provide a communications range of 10-15 feet. For communications between an individual user and the incident commander, approximately 700 milliwatts of power will be employed. Full power, a maximum of two watts, will be utilized for communications between the incident command unit and individuals for functions such as personnel accountability reporting, evacuation signals, homing signals, etc.

Until the frequency band is cleared of UHF television broadcast stations, STI will select frequencies for demonstration, testing or other use in a specific locale with a view toward avoiding the channel of operation of the television broadcast station. This is not only to assure that no harmful interference will be caused to the broadcast service, an unlikely event given the low power of operation, but more importantly to assure that interference is not received from the broadcast signal. In consideration of the low power and other factors discussed herein, STI respectfully requests the Commission to waive the requirement for notification of the Engineer in Charge of the radio district in which the on-scene/PAR system may be demonstrated, tested or otherwise operated, as otherwise required in Section 5.65 of the Commission's Rules.