



## LAND MOBILE COMMUNICATIONS COUNCIL

November 11, 2010

Mr. Paris Stavrianidis, General Manager  
FM Approvals  
500 River Ridge Road  
Norwood, Massachusetts 02062

Re: Factory Mutual Approval Standard 3610

Dear Mr. Stavrianidis:

The Land Mobile Communications Council (“LMCC”) is a non-profit association of organizations representing virtually all users of land mobile radio systems, providers of land mobile services, and manufacturers of land mobile radio equipment. A membership roster is attached for your review. The LMCC acts with the consensus, and on behalf, of the vast majority of public safety, business, industrial, transportation and private commercial radio users, as well as a diversity of land mobile service providers and equipment manufacturers.

It has come to LMCC’s attention that FM Approvals has revised Approval Standard 3610 to require recertification of all intrinsically safe devices that have been approved under the current 3610:1988/1999 standard. The revisions apparently reflect changes to the American National Standards Institute (“ANSI”) / International Society of Automation (“ISA”) 60079-11 series that were made to harmonize that standard with the International Electrotechnical Commission (“IEC”) 60079 series of standards.

LMCC has grave concerns regarding the impact that these changes will have on users of land mobile radios including public safety, oil, electric, gas and other critical infrastructure companies and other user groups and urges FM Approvals to reconsider application of the revised Approval Standard 3610 to land mobile radio equipment.

### **I. Harmonization of Approval Standards Under Severe Time Constraints Will Not Promote Safety**

Although LMCC understands that FM Approvals has been working on revisions to the 3610 approval standard for some time, it appears that land mobile radio manufacturers and user groups were substantively involved in the process only recently. It is important that FM Approvals understand the adverse impact that these changes will have on the radio user community.

According to information provided by radio manufacturers, virtually all existing products lines will need significant redesign to meet the new 3610 approval standard. As a result, it appears that there may be no land mobile radios currently in production that both satisfy the revised 3610 approval standard and have been certified for use by the Federal Communications Commission

(“FCC”). Land mobile radio manufacturers indicate that to meet the revised approval standards, portable radio output power will need to be dramatically reduced, resulting in loss of radio coverage in areas in which hazardous atmospheres may be present. Redesign of communications systems, including deployment of additional base stations, towers and other infrastructure, will be necessary to maintain coverage using equipment designed to meet the revised standards.

Radio redesign itself may take upwards of one year or more. It is not uncommon for design, testing, and deployment of a new radio system also to take several additional years. For facilities such as petroleum refineries, mapping and transition to a new facility classification system alone could take several years. Additional training will be required for personnel to operate radios that have been significantly redesigned or have more cumbersome form factors as the result of redesigned circuit spacing. In light of these time considerations, we believe is not possible as a practical matter to meet a 2012 implementation deadline.

If intrinsically safe radios are not approved under the revised standard and certified by the FCC by the 2012 deadline, land mobile operators may be faced with severe equipment shortages. Some users may have no choice but to migrate to a lower protection standard (*e.g.*, Division I to Division II) as a way to maintain communications.

These realities present serious safety concerns that must be considered before a revised approval standard is imposed.

## **II. Compliance With Revised Approval Standards By 2012 Will Significantly Burden Land Mobile Radio Users**

As discussed above, implementation by 2012 of a revised 3610 approval standard will have a significant detrimental impact on a wide variety of land mobile radio users. Given the condition of the current national economy and state and local government budgets, forcing already constrained user groups to expend resources on new communications equipment is imprudent, particularly given that no benefit to safety has been identified.

Communications systems typically have a useful life cycle of 10 years or more. Beyond portable devices, changes to the design of intrinsically safe land mobile radios will require correlated changes to communications system infrastructure, base stations, antenna towers, replacement of batteries and charges – all with significant costs to user groups.

In addition, in order to comply with the FCC’s upcoming mandate to replace wideband (25 kHz bandwidth) land mobile radios with narrowband (12.5 kHz bandwidth) equipment by January 1, 2013, land mobile users are well into a major overhaul of existing radio systems. The FCC’s narrowbanding requirement includes an interim 2011 deadline driving compliance by many groups before 2013. As each day passes, more entities purchase replacement narrowband radio equipment.

Because of the current lack of intrinsically safe equipment that meets the revised 3610 approval standard, and the timeframes involved in device and system redesign, budget cycles, and

deployment, it is difficult, if not impossible to imagine how users will be able to meet mandates from both FM Approvals and the FCC without wasting resources (and in some instances tax dollars) on the purchase of unnecessarily redundant equipment.

At a minimum it is likely that many users will be required to replace equipment that has been in use for only a short period of time.

In light of these concerns, forced migration to a new intrinsically safe standard should be required only if it has been demonstrated beyond doubt that the current standard does not adequately promote safe operation.

To the contrary, there appears to be no demonstration that the existing 3610 standard is inadequate to ensure safe operation of land mobile radio equipment in hazardous atmospheres. In fact, LMCC is not aware of a single instance in which intrinsically safe radios approved under the current 3610 standard were responsible for a safety incident. Instead, the revised approval standard appears to be developed for no reason other than to harmonize the U.S. standard with the standard used overseas.

While there may be administrative efficiencies that are gained through standards harmonization, FM Approvals must consider the impact that the imminent revision to the current 3610 approval standard will have on entities that rely on intrinsically safe land mobile radios, including public safety, oil and natural gas companies, manufacturers and others. These concerns should be paramount in any effort to revise the intrinsically safe equipment standards and certainly should take precedence over the goal of standards synchronization.

LMCC urges FM Approvals to reconsider implementation of its revised 3610 approval standard as it is applied to land mobile radios. We welcome any opportunity to provide additional information to you and work cooperatively with you regarding this matter.

Sincerely,

Kenton Sturdevant, President  
8484 Westpark Drive, Suite 630  
McLean, Virginia 22102

ccs:

Adm. James Arden Barnett, Jr., USN (Ret.), Chief, PSHSB, FCC	(Via Email)
Mr. Julius Knapp, Chief, OET, FCC	(Via Email)
Mr. Robert Martell, Director – Electrical, Factory Mutual	(Via FedEx)
Ms. Ruth Milkman, Chief, WTB, FCC	(Via Email)
Mr. Ted Schnaare, Chairman ISA12	(Via FedEx)
Mr. Shivan S. Subramaniam, Chairman/CEO, FM Global	(Via FedEx)
LMCC Membership	(Via Email)

# **Membership Roster**

## **Land Mobile Communications Council (LMCC)**

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American Association of State Highway and Transportation Officials (AASHTO)  
American Automobile Association (AAA)  
American Petroleum Institute (API)  
Association of American Railroads (AAR)  
Association of Fish and Wildlife Agencies (AFWA)  
Association of Public-Safety Communications Officials-International, Inc. (APCO)  
Aviation Spectrum Resources, Inc. (ASRI)  
Central Station Alarm Association (CSAA)  
Enterprise Wireless Alliance (EWA)  
Forest Industries Telecommunications (FIT)  
Forestry-Conservation Communications Association (FCCA)  
Intelligent Transportation Society of America (ITA America)  
International Association of Fire Chiefs (IAFC)  
International Municipal Signal Association (IMSA)  
MRFAC, Inc. (MRFAC)  
National Association of State Foresters (NASF)  
PCIA – The Wireless Infrastructure Association (PCIA)  
Telecommunications Industry Association (TIA)  
Utilities Telecom Council (UTC)