

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of)
)
Revision of the Commission's) CC Docket No. 94-102
Rules To Ensure Compatibility)
With Enhanced 911 Emergency) RM-8143
Calling Systems)

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COMMENTS

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January 9, 1995

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SUMMARY

The TIA strongly supports the deployment of Enhanced 911 Calling Service for all callers. The TIA has worked with other affected interest groups in order to work out the technical issues involved in delivering such a capability. For that reason, TIA does not agree that the FCC needs to impose mandates or deadlines in order to provide such a technical capability. What is required is FCC action to assign responsibilities among the various entities involved in providing support of Enhanced 911 Calling Service. Equipment installations on both the customer side and the Public Safety side need to be compatible. Databases must be established and maintained over time. The limitations of call-back numbers need to be understood. Unless all the component parts do their job, compatibility cannot be assured.

Because the technical issues involved in the wireless side of the industry will require some time to resolve, the Commercial Mobile Radio Services ("CMRS") issues should be split from the Multi-Line Telecommunications Systems ("MLTS") issues and handled in a separate phase of this or another Docket. Any final rules need to have precise definitions of what is expected and the TIA has recommended definitions to facilitate an interpretation of the minimum requirements the Commission should impose.

There are also dialing, numbering, and grandfathering issues that will require resolution in this Docket. However, it does not appear that Grade-of-Service requirements need to be specified by the FCC for 911 Calling Service. Since it is the installation of the MLTS equipment that determines how it will be used (or in the case of

of CMRS handsets that are used in a roaming environment, the service capabilities in the roamed area), the FCC should not require mandatory equipment labeling but rather detailed user instructions that explain how the equipment should be used for 911 Emergency Calling Service in various scenarios.

The TIA acknowledges that there are some feature-interaction concerns that need technical investigation and work is already underway to resolve these issues. The TIA has also worked to come up with a satisfactory resolution of the text telephone interface and the International Telecommunication Union Standard v.18, supported by TIA's Engineering Committee TR-30, will provide compatible operation of all known text telephones including compatibility with 911 Services.

The FCC must acknowledge that Part 68 does not need to require MLTS equipment to have an inherent capability to transmit the Caller's Emergency Service Identification ("CESID") number for registration purposes, as long as a form of compatible operation is assured at the time of installation. There are numerous ways compatible operation can be assured and Part 68 should not mandate a particular method such as direct support of a 911 Centralized Automatic Message Accounting ("CAMA") trunk. After installation, a "verification" routine should be established that will demonstrate that the goals of this Rulemaking have been achieved and compatible operation has been established. The proposed rules for this verification phase can be greatly simplified.

Wireless support of Enhanced 911 Calling Service can be achieved from both wireless interfaces used with MLTS equipment as well as from CMRS equipment.

However, there are many technical issues to be resolved and the TIA believes the Commission should encourage cooperative efforts directed towards resolving these problems rather than mandating deadlines that might not be realistic. The wireless industry and other affected interest groups have already achieved a consensus on many of the issues required to be resolved, and TIA and its Engineering Committees will work with the other representatives involved to establish these capabilities on a timely basis. The FCC should maintain an oversight function of these activities rather than dictating design requirements or imposing arbitrary deadlines.

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COMMENTS

The Telecommunications Industry Association's User Premises Equipment Division and Mobile and Personal Communications Division ("TIA") hereby respond to the Commission's Notice of Proposed Rulemaking ("NPRM")¹ regarding compatibility of: (i) private branch exchanges ("PBX") and other dispersed private telephone systems with Enhanced 911 emergency services;² and (ii) Commercial Mobile Radio

¹ FCC 94-237 released October 19, 1994.

² There are different definitions of what is included within the phrase "Enhanced 911." The major capabilities that distinguish Basic 911 Calling from Enhanced 911 Calling Service are the capabilities to -- at a minimum -- provide Selective Routing of 911 calls to the appropriate Public Safety Answering Point ("PSAP") and to be able to display information about the telephone instrument or line on a video display terminal of the safety agent who answers the call. Typically this information includes the telephone number and location of the caller. However, the list of features included within the phrase "Enhanced 911" may not be static. As technology changes and PSAP needs change, the capabilities provided may be expanded. The FCC will need to define the minimum set of capabilities it desires, but should recognize that additional features beyond the minimum may be offered. TIA offers in these Comments its proposed definition for Enhanced 911 and other terms used in providing these services. These Comments will not use the abbreviation "E911" for Enhanced 911 Calling Service. As discussed in TIA's Telecommunications Systems Bulletin 103, footnote 3, this abbreviation, which is frequently used, has created confusion for some

Services ("CMRS") that provide real-time voice services and Enhanced 911 emergency services.

INTRODUCTION

The TIA represents the manufacturers and suppliers of the equipment that will be used to originate and route the calls to the PSAP as well as the equipment used at the PSAP to respond to the calls. The TIA has been very active in addressing the issues generated by the deployment of Enhanced 911 Calling Services throughout the United States. These efforts have included the technical work in TIA's Engineering Committee TR-41 to create and issue Telecommunications Systems Bulletin ("TSB") 103, "PBX and KTS Support of Enhanced 911 Calling Service,"³ as well as the TIA being a participant in RM-8143. Engineering Committee TR-41 also is working on issues raised by the introduction of wireless PBXs and compatibility with Enhanced 911.

On the mobile and personal communications services ("PCS") side of the industry, the TIA has worked to define the requirements for compatibility Standards for wireless support of Basic 911 and Enhanced 911 emergency services. The TIA has worked with the National Emergency Number Association ("NENA"), the Association of Public Safety Communications Officials, Inc. ("APCO"), the National Association of State 911 Administrators ("NASNA"), the Cellular Telecommunications Industry

callers who have attempted to dial or key the digits "E-9-1-1." The confusion can be eliminated by not using the abbreviation.

³ This document is incorrectly called a Technical Systems Bulletin in the NPRM at paragraph 14 and footnote 21.

Association ("CTIA"), the Personal Communications Industry Association ("PCIA"), and with the part of Accredited Standards Committee T1 which is working on these issues (i.e., T1P1) to develop the requirements for compatibility Standards.

This work is documented in two Joint Experts Meeting ("JEM") Reports. The TIA "TR-45 Emergency Services Joint Experts Meeting Report" was approved on August 24, 1994. The second report, entitled: "Wireless Support of 9-1-1 and Enhanced 9-1-1 Emergency Services, Joint Experts Meeting Report," was published on November 2, 1994, after the release date of the NPRM. The two JEM Reports represent a consensus of the Public Safety community, North American service providers, manufacturers, U.S. standards organizations, and industry trade associations.⁴

In the NPRM, the FCC seeks comment on proposed new Part 68 regulations concerning support of Enhanced 911 Calling Service by Multi-Line Telecommunications System ("MLTS") equipment and on a number of issues related to support of Enhanced 911 Calling Service by CMRS providers. The TIA and representatives from its

⁴ In this regard, the TIA believes cooperative efforts such as these are a better method to resolve complex technical issues than adversarial Notice and Comment Rulemakings. The Commission has used such cooperative methods in the past. In CC Docket 79-143 the Commission gathered affected interests together to work out the technical details of adding the Private Line services to Part 68. The FCC Staff has utilized ad hoc groups such as the Ad Hoc Group on Part 68 Administrative Procedures to work on implementation details of Part 68. TIA's Engineering Committee TR-41 has often provided technical support to the FCC on Part 68 matters and developed appropriate industry Standards, Telecommunications Systems Bulletins, or other documents to satisfy FCC Part 68 concerns. The FCC has recently proposed a cooperative effort via a Federal Advisory Committee for Negotiated Rulemaking to address Part 68 concerns of Hearing Aid Compatibility ("HAC") issues with telephone equipment. The TIA believes the industry has demonstrated its willingness to work with affected interest groups including the Public Safety community such that the primary role of the FCC should just be one of oversight.

Engineering Committees have reviewed the NPRM in several open meetings, and TIA has organized the comments received at those meetings into three Sections. Section 1 contains General Comments on the NPRM, including discussion of issues that are common to both MLTS and CMRS support of Enhanced 911 Calling Service. Section 2 contains comments on issues that primarily impact MLTS equipment, including the proposed Part 68 regulations in Appendix C of the NPRM. Finally, Section 3 contains comments on issues primarily associated with CMRS support of Enhanced 911 Calling Service.

1. GENERAL COMMENTS

The TIA strongly supports the deployment of Enhanced 911 Calling Service.

The TIA agrees with the long-term objective of assuring that any 911 caller from any telephone should receive the full benefits of Enhanced 911 Calling Service, to the maximum extent feasible. In the wireline side of the industry, the TIA notes that both Basic and Enhanced 911 Calling Services were developed and deployed without the "spur" of government mandates of any kind. When problems with MLTS support of Enhanced 911 Calling Service were identified, the TIA formed an ad hoc group, TR-41.1.9, to address those issues. That group researched the problems associated with MLTS support, and issued a Telecommunications Systems Bulletin (i.e., TSB 103) that identifies viable solutions for MLTS installations. As mentioned in the NPRM at paragraph 14, the group is currently working to develop appropriate Standards for MLTS support of Enhanced 911 Calling Service that will accommodate both existing

and future equipment and service designs. With the assistance of other TIA Engineering Subcommittees, it will also help address solutions for CMRS providers.

The TIA also fully supports the Commission's objective of maximizing the compatibility between wireless services and Basic 911 and Enhanced 911 systems. At the same time, the TIA respectfully differs with the Commission's assessment that the mobile industry would not voluntarily promote compatibility of wireless services and Enhanced 911 systems, and with the Commission's proposal to require that various aspects of compatibility be implemented within fixed deadlines. In the TIA's view, the wireless industry has in fact been working hard to overcome the technical challenges to compatibility.

Federal regulations should assign responsibilities among the various entities involved in providing support of Enhanced 911 Calling Service.

As noted in TSB 103, the TIA believes that Federal regulations are needed to assure uniform (or at least compatible) deployment of Enhanced 911 Calling Services nationwide. These regulations should supersede State and Local regulations to the extent that Federal regulations can prevent incompatibility problems. This will simplify equipment design and installation, and minimize the potential for operational problems. But the real thrust of Federal regulations, should be to assign responsibility for the various activities necessary to assure that Enhanced 911 Calling Service will function properly. This requires a cooperative effort between and among equipment manufacturers, telephone service providers (including local exchange carriers, call aggregators and CMRS providers), Public Safety agencies, and Public Safety database

maintainers. For example, equipment manufacturers should produce and market equipment that can support (or be made to support via adjuncts) Enhanced 911 Calling Service. To the extent feasible, local exchange carriers and other entities providing similar services (e.g., cable companies providing local services), should be required to provide the equipment interfaces and services necessary to access the Public Safety network properly. Call aggregators should be responsible for assuring that the MLTS and other equipment they use to provide telephone services operate properly to support Enhanced 911 Calling Service.⁵ CMRS providers should be required to support Enhanced 911 Calling Service when appropriate solutions are identified and available for that industry.

However, all of these conditions will not deliver Enhanced 911 Calling Service to the American consumers unless Public Safety agencies also install and maintain the corresponding equipment necessary to provide Enhanced 911 Calling Service on a compatible basis.

And finally, the accuracy of the Public Safety agency database is critical to the successful operation of Enhanced 911 Calling Service. The MLTS owner or CMRS provider must be responsible for proper maintenance of that database. That is to say, they must take all reasonable steps to assure that their data in the database is properly maintained. However, when a MLTS provider gives data to a local exchange carrier who is maintaining the database, such information must be protected by the FCC's Customer Proprietary Network Information ("CPNI") rules. Since local exchange

⁵ This is similar to the Part 64 regulations recently introduced to require call aggregators to use equipment that supports Equal Access dialing.

carriers also sell MLTS equipment, they are competitors to other MLTS providers. TIA further recommends that these database maintenance responsibilities be covered in a FCC Rules Section other than Part 68 since database maintenance is a day-to-day requirement that will affect many different categories of service providers and the focus of Part 68 is primarily directed to the manufacturer and equipment registration. Only a few MLTS equipment requirements need to be specified in Part 68, and these requirements should be general enough to accommodate evolution of both the technology and architecture of the Public Safety network.

This Docket should be split to address MLTS and CMRS issues separately.

The TIA understands the motivation for addressing all Enhanced 911 Calling Service issues in a single FCC Docket. However, there are several good reasons for recommending that MLTS and CMRS issues be handled in separate Dockets. First, the technical issues are significantly different. Second, many States and Local jurisdictions have, or are in the process of developing, regulations aimed at MLTS Enhanced 911 support, while CMRS regulations are much further away. And third, solutions for both in-place and future MLTS equipment designs have been identified and can be implemented, while much more work remains for CMRS support. Thus, the Docket should be split to address the MLTS and CMRS issues separately.

Definitions are recommended to facilitate interpretation of the regulations.

Many forums and organizations have addressed various aspects of Enhanced 911 Calling Service, and unfortunately, a confusing variety of terms and definitions have been developed. The TIA agrees with the FCC that an appropriate "Definitions" Section should be included in the regulations to facilitate interpretation of those regulations. To that end, the TIA recommends that the following definitions be included in the final regulations:

Enhanced 911 Calling Service:

A telephone network capability that provides as a minimum both Selective Routing of 911 calls and the display of caller information (including telephone number and location) on the video display terminal of the safety agent who answers the call.

Selective Routing:

The ability of the telephone network to route a 911 call to the appropriate Public Safety Answering Point (PSAP), which is usually the one nearest the caller.

Selective Routing reduces emergency response time by minimizing the need for call transfers in areas served by more than one PSAP.

Public Safety Answering Point (PSAP):

An agency responsible for answering 911 calls that originate within its service area, and for dispatching an appropriate emergency response team (e.g., police, fire, or medical).

Enhanced 911 Calling Service Compatibility:

Telephone equipment is compatible with Enhanced 911 Calling Service when it transmits to the telephone network the Caller's Emergency Service Identification (CESID) number, or when the telephone company automatically knows that number, such as is the case with single-line residences and coin telephones and MLTS equipment with trunks equipped with Automatic Number Identification (ANI) used in a non-dispersed environment. The CESID is required to affect both Selective Routing and the display of appropriate caller information on the video display terminal of the answering safety agent.

Caller's Emergency Service Identification (CESID) number:⁶

(Based on the definition in American National Standards Institute ("ANSI") Standard ANSI T1.411-1994, "Interface Between Carriers and Customer Installations - Analog Voicegrade Enhanced 911 Switched Access Using Network-Provided Reverse-Battery Signaling.") A number (currently seven-to-ten digits, but probably more in

⁶ Public safety agencies use the term Emergency Service Number instead of CESID, but the abbreviation "ESN" could be confused with the Electronic Serial Number ("ESN") used in CMRS operation descriptions.

future implementations) assigned to a 911 call to facilitate Enhanced 911 Calling Service. In current implementations, the CESID may be the directory number of the caller's telephone, the billing number of the caller's telephone, or some other (pseudo-telephone) number. It is used both to route the call and as a key to unlock the PSAP database information associated with an Enhanced 911 call. Appropriate information for each CESID must be entered in the PSAP database used by the local safety agency. Phones connected to MLTS equipment may use a common CESID when those phones are in close proximity, that is, within a single emergency response location. Also, the CESID for a CMRS (or PBX wireless interface) caller may change during a call as a function of the caller's location.

Emergency Response Location:

A well-defined area to which an emergency services response team is dispatched. The area must be defined well enough to permit the emergency response team to locate the caller quickly. For example, the address of a multi-story building is normally not precise enough, but that address coupled with the floor number (and room number, if appropriate) is usually sufficient.

Multi-Line Telecommunication System (MLTS):

A telephone switching system such as a Private Branch Exchange (PBX), Multi-Function (Hybrid) System, Key Telephone System (KTS), or Centrex Service that connects more than one telephone to the public telephone network.⁷

Dispersed Private Telephone System:

MLTS equipment that serves telephones dispersed over an area too wide to be considered a single "emergency response location." As an extreme example, some MLTS installations serve telephones located in different buildings, many kilometers apart. It is important to note that the "dispersed" nature of a system is determined by how it is installed, not by how it is designed or manufactured.

911 Centralized Automatic Message Accounting (CAMA) Trunk:

A dedicated trunk for handling only outbound calls from MLTS or CMRS installations to Enhanced 911 Calling Service. It uses loop reverse-battery call supervision and in-band Multi-Frequency ("MF") address and CESID transmission.

(See ANSI T1.411)

⁷ The FCC specifically noted possible problems with Centrex implementations in footnote 21 of the NPRM.

Several dialing and numbering plan issues should be recognized and accommodated.

Three-digit 911 dialing:

The TIA recognizes and supports the long-term objective that any 911 caller may access Enhanced 911 Calling Service by simply dialing in the normal manner for that telephone the three-digit number "911." There may be, however, some special cases in which this would not be implemented. For example, some existing MLTS installations use "91" as a two-digit outgoing trunk access code. These two digits are frequently followed by the digit "1" for long-distance access in North America. These systems would have to be modified to prevent unintentional dialing of 911 emergency access calls, and the resulting training period for employees familiar with the older system would undoubtedly result in unintentional 911 calls. It should also be noted that the three-digit 911 dialing implementation eliminates the possible future use of 11X special service codes on dial-9 access trunks, since the 9-11 combination would again generate unintentional 911 calls. The TIA also notes that the language of proposed rule 68.320 (c) could be read to preclude assigning station numbers in the form of X911 (e.g., 6911). The TIA assumes the FCC meant to only cover the case of "additional access digits" preceding 911, and this will be clarified in the final rule if the FCC implements three-digit 911 dialing.

Insufficient capacity to accommodate seven- and eight-digit CESIDs:

In most areas of the country, the Public Safety networks are only capable of handling seven- or eight-digit CESIDs. Typically, by using seven digits for a local number, this leaves only one digit position to convey Area Code or other information. Some PSAPs may need to handle more than 10 Area Codes, thus, CESIDs longer than 8 digits are required. Some parties also want to use additional resources of the numbering plan for CESID assignments. CESIDs also need to be used to convey CMRS location data. Because of the increasing number of situations requiring CESID assignment, it is not clear that the current CESID field length has sufficient capacity to accommodate all scenarios. The long-term objective should be to expand the maximum number of allowable CESID digits. The expansion may even wish to contemplate very long-term future scenarios such as the exhaust of conventional seven-digit local telephone numbers.

Grandfathering of existing MLTS and CMRS installations needs resolution.

The TIA notes that the FCC has not required the retrofitting of in-place equipment to make it compatible with Enhanced 911 Calling Service. However, TIA also notes that some States have passed or will be passing regulations that will mandate such retrofitting, and, thus, the TIA suggests that appropriate requirements be developed at the Federal level to avoid regional incompatibilities. Many existing MLTS and CMRS installations will require significant modifications to support Enhanced 911 Calling Service. There are cases where requiring such modifications seems

inappropriate. For example, such modifications should not be required for equipment used in areas where Enhanced 911 Calling Service is not available. It also seems inappropriate to require such State-mandated modifications in situations where the benefits do not outweigh the burden. For example, many small, modest-means lodging providers might find the cost of modifying their MLTS equipment oppressive (*i.e.*, the cost could far exceed the original purchase price of the equipment), especially when weighed against the increased benefit to potential 911 callers and the extremely low probability of such calls. These MLTS providers may opt to remove the phones altogether rather than retrofit the system, resulting in the loss of access to even Basic 911 for the lodgers.⁸ This loss of even Basic 911 access would not be in the public interest.

Grade-of-Service requirements are not appropriate for 911 Calling Service.

Conventional Grade-of-Service requirements are based on anticipated and measured telephone traffic patterns for an equipment installation. Such requirements appear entirely inappropriate for 911 calling because of the uniqueness of 911 traffic patterns. The probability of simultaneous 911 calls not associated with a common disaster is incredibly small, even for the largest of equipment installations. On the flip side, the number of simultaneous calls associated with a single or common disaster is

⁸ The FCC faced similar issues when it ordered the retrofitting of all workplace telephones to be Hearing Aid Compatible ("HAC"). Many owners of equipment stated they would remove the equipment altogether in lieu of absorbing the enormous retrofit expense. The FCC issued a suspension of its retrofit requirement due to such concerns.

frequently very large. Consequently, intelligent traffic engineering to meet specific grade-of-service objectives is virtually impossible. In many cases, 911 calls will be routed over ordinary telephone call facilities (i.e., as opposed to facilities specifically dedicated to handling only 911 calls), much the same as 911 calls from a residence. In these cases, the grade-of-service is dictated by normal calling patterns. However, the value of "throttling back" calls associated with a single or common disaster is recognized and the TIA believes that such control is best exercised in the public safety network or at the answering PSAP.

User and installation instructions are preferred to equipment labeling requirements.

The TIA believes that the labeling of equipment that does not support Enhanced 911 Calling Service would create confusion and provide no real benefit to the user. Equipment that supports Enhanced 911 Calling Service might be installed in an area that does not provide that service. The user must know this or be completely confused. Furthermore, equipment that does not inherently support Enhanced 911 Calling Service can be made to do so via the use of adjunct equipment. A pre-applied label may be incorrectly interpreted to preclude this possibility. It seems far more reasonable to require that equipment installation and use instructions provided by the manufacturer indicate how the equipment can be configured or used to support Enhanced 911 Calling Service, or indicate that it cannot be made to do so, or can only do so with specified adjunct equipment. Then, any required instructions unique to that installation can be supplied by the installer to the users at that site.

Mandatory labeling of mobile equipment also does not seem appropriate when one realizes that such equipment can "roam" from area to area and can include areas where there is no Enhanced 911 Calling available as well as areas where even Basic 911 calling has not been implemented. User instructions in the manual describing various scenarios is much more useful to the subscriber.

PSAP database issues need more attention.

The success of Enhanced 911 Calling Service is critically dependent on the accuracy of the database used by the PSAP to extract caller information. The responsibility for maintaining that database must be clearly assigned, and may vary on a case-by-case basis. It seems reasonable, however, to specify a maximum time interval for updating the database to reflect additions, changes, and deletions.

Call-back numbers often have limitations

Some MLTS installations do not permit Direct-Inward-Dialing ("DID") to stations. For these installations it is necessary to assign CESIDs that are not valid call-back numbers. Similarly, for CMRS 911 callers, the transmitted CESID might not be the caller's telephone number. In both of the above scenarios, the transmitted CESID is used to effect Selective Routing and to key the PSAP database look-up of information associated with the calling station. This information can include the caller's Directory Number ("DN") and in the case of some installations will include the listed DN for a PBX installation plus the PBX extension number to be given to the attendant. The assignment of these CESIDs must be coordinated with the local telephone company to

avoid duplicate assignments. Also, the PSAP database records should identify which CESIDs are non-valid call-back numbers, and provide an alternative call-back number if one is available.

Feature-interaction concerns need to be investigated.

The activation of features such as call-forwarding, night-transfer, and do-not-disturb, whether by MLTS equipment or as a network service offering, can create caller location and call-back problems. Work is underway at TIA to resolve the generic problem of feature-interaction interference with Enhanced 911 Calling Service.

Text Telephone devices can be supported.

The International Telecommunication Union recently adopted a data modem Standard, v.18, that provides compatible operation of all known Text Telephones. TIA's Engineering Committee TR-30 supported the work to develop this new international Standard. As v.18-compliant modems become available, Text Telephone users will be able to communicate more easily and reliably with 911 emergency services.

2. MLTS EQUIPMENT ISSUES

As mentioned earlier, the TIA believes that most of the regulations necessary to assure that MLTS equipment is compatible with Enhanced 911 Calling Service do not belong in Part 68, but rather in another Section of the FCC's Rules that assigns specific responsibilities for assuring that the equipment *installation* is made compatible and that

data in the PSAP database is maintained. Nonetheless, the TIA will provide some commentary on the proposed new Part 68 requirements in Appendix C of the NPRM.

Part 68 should not require MLTS equipment to have the inherent capability to transmit CESID in order to be registered; compatibility at time of installation is what is important.

There are many situations in which MLTS equipment can support Enhanced 911 Calling Service without the equipment itself having the inherent capability to transmit CESID.⁹ A small KTS or PBX installation with stations confined to a single emergency response location (i.e., MLTS equipment in a non-dispersed environment) is a good example. The situation is similar to a single-line residence phone or a coin telephone, where telephone company assignment of a single CESID is all that is required for calls from any station. Consequently, it makes no sense to require that MLTS equipment be capable of transmitting CESID as a condition of registration when it can be used in such applications.

Many other techniques that may be used to make an installation of MLTS equipment compatible with Enhanced 911 Calling Service are outlined in TSB 103. Several of these options employ the use of adjunct equipment to transmit the CESID. Consequently, Part 68 registration requirements need only assure that appropriate

⁹ When the CESID is transmitted and used for the PSAP database query, the pertinent 911 information is displayed at the PSAP. Thus, the FCC's proposed rule requirement of 68.320 (f) needs to be clarified to indicate that only the CESID is transmitted with the 911 call and not the listed information. That listed information is provided at the time of installation, is stored in the database, and needs to be updated as it changes.

MLTS installation instructions explain how an installation may be made compatible with Enhanced 911 Calling Service via the use of such adjunct equipment.

Part 68 should not require that the equipment itself be inherently capable of transmitting caller CESID as a condition of registration. The objectives of this NPRM for MLTS equipment can be achieved by instead requiring the manufacturer to demonstrate how Enhanced 911 Calling Service compatibility can be achieved (if required for a particular installation) and ensure that the installation instructions identify such scenarios. Some small systems may be designed solely for the non-dispersed environment and, therefore, are already compatible.

**Installation "verification" requirements seem appropriate:
but should be simplified.**

The TIA believes that some form of installation "verification," as specified in Appendix C is a good idea, but, the proposed requirements seem somewhat onerous, and it is not clear that they belong in Part 68. If a party can install the equipment it can be assumed they are the responsible party to verify compliance. A written notice that compliance has been achieved may be all that is required.

The proposed Signal Power requirements seem appropriate.

The proposed signal power limits specified in Appendix C seem okay, but it should be noted that TIA TR-41 is evaluating those limits as part of a USA/Canada/Mexico harmonization effort under the auspices of the North American Free Trade Agreement ("NAFTA") and will include any Comments as part of TIA's harmonization efforts.