

P1260

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Type of Project: Revision to IEEE Standard 1260-1996

PAR Request Date: 26-Jul-2017

PAR Approval Date: 28-Sep-2017

PAR Expiration Date: 31-Dec-2021

Status: PAR for a Revision to an existing IEEE Standard

Root Project: 1260-1996

1.1 Project Number: P1260

1.2 Type of Document: Guide

1.3 Life Cycle: Full Use

2.1 Title: Guide on the Prediction, Measurement, and Analysis of AM Broadcast Reradiation by Power Lines

Changes in title: ~~IEEE~~ Guide on the Prediction, Measurement, and Analysis of AM Broadcast Reradiation by Power Lines

3.1 Working Group: Corona and Field Effects (PE/T&D/TPC-Corona)

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3.2 Sponsoring Society and Committee: IEEE Power and Energy Society/Transmission and Distribution (PE/T&D)

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4.1 Type of Ballot: Individual

4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 08/2018

4.3 Projected Completion Date for Submittal to RevCom

Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 02/2019

5.1 Approximate number of people expected to be actively involved in the development of this project: 20

5.2 Scope: This guide provides a set of procedures that can be used to cope with reradiation of AM broadcast signals from power lines. It can also be applied to other large metallic structures.

While the procedures listed in this guide may be applicable to reradiation problems from other medium frequency (MF) sources, such as navigation beacons, they are not intended to be applied to reradiation problems from higher frequency sources, such as television broadcast signals. This guide is not designed to be applied as legal evidence of harmful effects of a reradiating structure upon an AM broadcasting station.

In some jurisdictions, the government regulatory or licensing authority has defined specific procedures for the determination of radiation patterns of medium wave antenna systems. Some of these procedures

Changes in scope: This guide provides a set of procedures ~~to that can~~ be ~~followed~~ used to cope with reradiation of AM broadcast signals from power lines. ~~and~~ It can also be applied to other large metallic structures.

~~An~~ While AM the broadcast procedures array listed is in carefully this constructed guide may be applicable to radiate reradiation strongly problems towards from listeners other and medium weakly frequency in (MF) directions sources, where such interference as navigation beacons, they are not intended to other be stations applied could to result reradiation Reradiation problems can from occur higher when frequency these sources, broadcasted such as television broadcast signals. are This parasitically guide picked is up not by designed to large be metallic applied structures as and legal the evidence rebroadcasted, of or harmful reradiated, effects from of that a reradiating structure upon an AM broadcasting station. This In some result jurisdictions, in the a government decrease regulatory in or

are also contained in international treaties and agreements, and as such are binding on the licensees of the signatory jurisdictions. When there is agreement between the party or parties who are licensed to operate the medium wave antenna system(s) in question and the parties proposing construction of potential reradiating structures, the procedures of the responsible government agency or authority shall have precedence over the method outlined in this guide.

signal licensing towards authority listening has areas defined and specific procedures increase for in the signal determination in of protected radiation directions patterns The of process medium wave antenna systems. Some of predicting, these measuring, procedures and are analyzing also the contained interference in is international complex treaties and nontrivial agreements, necessitating and this as guide. such This are guide binding is on divided the into licensees of the following signatory sections: jurisdictions. interference When prediction there and is limitations, agreement guidelines between for the taking party meaningful or field parties strength who measurements, are methods licensed to analyze operate the field medium strength wave measurements, antenna and system(s) short in sections question and the application parties and proposing verification construction of remedial potential measures: reradiating A structures, series the procedures of annex the accompany responsible the government guide agency in or order authority to shall illustrate have precedence over the complex method analysis outlined in this guide.

5.3 Is the completion of this standard dependent upon the completion of another standard?: No

5.4 Purpose: An AM broadcast array is carefully constructed to radiate **Changes in purpose:**

strongly towards listeners and weakly in directions where interference to other stations could result. Reradiation can occur when the broadcasted signals are parasitically picked up by a large metallic structure and then rebroadcasted, or reradiated, from that structure. This can result in a decrease in signal towards listening areas and an increase in signal in protected directions. The process of predicting, measuring, and analyzing the interference is complex and nontrivial, and is why this guide was developed. It is anticipated that this guide will be used by owners of potentially reradiating structures, and radio stations.

5.5 Need for the Project: Transmission lines can pick up AM broadcast signals and reradiate them, distorting the delivery pattern of the station. The process of predicting, measuring, and analyzing the interference is complex, and is why this guide was developed. It is now being revised since it hasn't been since 1996.

5.6 Stakeholders for the Standard: Utilities, AM radio operators, consultants

Intellectual Property

6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: No

6.1.b. Is the Sponsor aware of possible registration activity related to this project?: No

7.1 Are there other standards or projects with a similar scope?: No

7.2 Joint Development

Is it the intent to develop this document jointly with another organization?: No

8.1 Additional Explanatory Notes: The document has not been revised since 1996 and there are typographical errors that need resolved. Additionally, we'll add some discussion on some newer procedures as well as improve the formatting for easier reading and understanding the document.