

# WAVA Interference Mitigation Plan

## Introduction

Electronic devices, which are operated in close proximity to broadcast stations may, in some instances, experience “interference”. The closer a device is located to a broadcast station, the stronger the signal and the potential interference. This particular phenomenon is known as “overload interference”.

## FCC Guidelines

The Federal Communications Commission (“FCC”) has addressed overload interference from nearby broadcast stations in its Rules and Regulations. The FCC’s Rules define the bounds of an area surrounding a broadcast station where such overload interference might be encountered as the “blanketing interference” area. **Figure 1** illustrates the bounds of the FCC defined area for WAVA. Please note that any interference resulting from WBIG would not extend beyond the bounds of the defined area for WAVA due to the strength of its broadcast signals. These Rules require the *broadcast station* to resolve complaints of blanketing interference for a period of one year after the commencement of operation, after which time information and assistance must be provided. However, this requirement does not include resolution of interference complaints resulting from malfunctioning or mistuned receivers (radio or television), improperly installed antenna systems, or the use of high gain antennas or antenna booster amplifiers. Further, broadcast stations are not required to resolve blanketing interference complaints regarding mobile receivers<sup>1</sup>, non-radio/TV devices such as tape recorders, hi-fi amplifiers (phonographs), computer systems, or telephones<sup>2</sup>.

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<sup>1</sup> For purposes of this plan, mobile receivers are commonly battery-powered such as car radios, remote car door locking or remote car starting systems, two way radios (walkie-talkie), portable amateur radio stations (sometimes located in cars), personal radios (i.e., “Walkman” style radios, boom-boxes, music players, MP3 players, either standalone units or integrated into portable phones, Ipods), portable phones, both cellular or those used in a home, and RF remote control devices normally used with garage door openers, televisions, or home entertainment systems, etc. This statement does not suggest that such mobile receivers will experience interference.

<sup>2</sup> Other such “exempted devices” include radio controlled toys, radio garage door openers, and other such devices. In some instances, these types of items may fail to operate correctly in the presence of a strong broadcast station’s signal.

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### **Description of Blanketing Interference**

The nature of blanketing interference from AM radio stations, such as WAVA(AM) (780 kHz), will differ from blanketing interference that may be created by FM radio stations, such as WAVA-FM (105.1 MHz). As such, the impacted device and the subsequent remedy will vary on a case by case basis. A number of techniques may be used to reduce interference, but sometimes a remedy cannot be attained due to the quality of the receiving device.

AM station blanketing interference can result in telephones “playing” the radio station because such devices can improperly act as a radio receiver for the radio transmitter station. Speaker systems associated with a computer system may also be prone to the same issue. Further, an AM radio receiver located close to an AM radio station may encounter difficulty in receiving other, more distant AM radio stations.

FM station blanketing interference is similar in nature but less likely to be an issue in the home or office environment due to the transmitting characteristics of the FM radio transmitter station.

### **Potential Remedies**

Potential remedies will vary based on many factors such as proximity to the broadcast station, whether the station is AM or FM, and the conditions of the involved interconnecting or power providing wiring (telephone, cable, computer network, electrical, building ground connection, etc.).

Typically, interference on the telephone can be reduced or eliminated by adding a “filter” between the phone and the connection to the wall mounted wiring block. Sometimes DSL filters provided by an internet service provider can also serve to reduce interference on a telephone from a radio station. Interference in a television set requires the use of a filter that reduces the undesired signal level while allowing desired signals to pass. This is called a “Notch” filter. Adding “ferrite chokes” to the affected equipment’s power cord and/or speaker wiring can sometimes improve immunity to such interference. These remedies are not always successful, and sometimes a combination of remedies is needed to reduce the interference.

To facilitate interference mitigation, a site survey must be conducted by a qualified technician to determine (1) which device is affected, and (2) the nature of the interference (which station). During this visit, a potential remedy may be implemented. However, it is sometimes necessary to order materials (i.e., filters, ferrite devices, etc.) to accomplish the task, requiring an additional visit after the necessary materials have been secured.

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### Plan

Residents, which are currently located within the Leeway Overlee Civic Association, the John M. Langston Citizens Association, the Tara-Leeway Heights Civic Association, and the Yorktown Civic Association (see **Figure 3**), will be contacted and provided with a copy of this WAVA interference mitigation plan, which is described in more detail below. If at any time during the implementation of this mitigation plan WAVA and WBIG no longer broadcast from the radio transmitter station, WAVA Building Limited Partnership will no longer be required to implement this WAVA interference mitigation plan. WAVA Building Limited Partnership's responsibility under this WAVA interference mitigation plan shall in no way effect the responsibility of any new broadcast tenant to fulfill its duties under its lease to implement an interference mitigation plan similar in nature to this WAVA interference mitigation plan.

1. A toll free telephone number will be provided to those residents, which are currently located within the area depicted in **Figure 3**, and will be answered by a staff person Monday through Friday between the hours of 9am and 5pm.
  - a. Those calling need to be informed that an attempt will be made to resolve reception problems to televisions and radios resulting from WAVA tower tenant station interference. Correction of interference problems with "wired" telephones will also be attempted. Attempts may be made to resolve problems with other devices, except those items listed in *Footnote 1*, where the problems are attributable to interference from tenants of the WAVA tower. It is important to understand that that sometimes a resolution may not be possible with certain items (i.e., toys, etc.). Successful resolution of all interference problems is not guaranteed. Any blanketing interference complaints where faulty antenna or unauthorized cable television (bootlegged) installations are involved are not eligible for assistance. Resolution of interference problems caused by broadcast stations on other nearby towers is not covered by this plan.
  - b. This WAVA interference mitigation plan will be provided free of charge to those residents, which are currently located within the area depicted in **Figure 3**, for a period of two (2) years from the date of the approval of the use permit amendment, including any resident, who has made a documented request to mitigate interference under the WAVA interference mitigation plan within two (2) years from the date of the County Board approval of the use permit amendment.

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- c. All who receive service pursuant to this mitigation plan must agree to the terms and conditions for providing the services contained herein.
2. A technician will then contact persons to obtain additional detail of the problems being encountered and to determine what materials (remedies) might be needed for the visit.

Technicians responding to calls will make on-site visits to homes for the resolution of interference complaints.

- a. Sometimes a return visit to a site may be necessary.
- b. Each visit will be documented in detail as to the date, time, work that was performed, the results of the work performed, how each complaint was handled, and the satisfaction with the provided service.

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