

ENGINEERING EXHIBIT IN
SUPPORT OF REQUEST FOR EARLY
TERMINATION OF ANALOG OPERATION
Northern Minnesota Public Television, Inc.
Bemidji, MN

This engineering statement is prepared to support a request for authority to permit KAWE(TV) - Bemidji, Minnesota to terminate analog operation and commence operation on its present analog channel with its authorized post-transition DTV facilities prior to the end of the DTV transition. KAWE presently operates on Channel 9 and has its paired pre-transition DTV operation on Channel 18. KAWE has been assigned Channel 9 for post-transition DTV operation and has been granted a construction permit (BPEDT-20080317AAL) for post-transition DTV operation on Channel 9. This engineering exhibit documents that operation with the post-transition facilities authorized by the above referenced construction permit prior to the end of the DTV transition will not cause additional interference to any other station requiring protection consideration.

There are no pre-transition DTV facilities which require protection consideration from the facilities authorized by KAWE-DT's post-transition construction permit. There are, however, five presently operating analog TV stations which require protection consideration from pre-transition DTV operation by KAWE-DT on Channel 9:

WDSE-TV	Duluth, MN	Channel 8
KMSP-TV	Minneapolis, MN	Channel 9
KABY-TV	Aberdeen, SD	Channel 9
WDIO-TV	Duluth, MN	Channel 10
KBRR	Thief River Falls, MN	Channel 10

The post-transition DTV facilities authorized by KAWE-DT's construction permit will utilize the presently licensed KAWE analog antenna system but with an effective radiated power 13.4 dB less than the presently licensed analog effective radiated power. The magnitude of this power reduction substantially exceeds the 6 dB increase in the co-channel interference ratio for analog stations when the interfering station changes from

analog to digital.¹ As a result, it is obvious that the substitution of the Channel 9 digital facilities authorized by KAWE-DT's post-transition construction permit for the presently licensed analog facilities will not result in an increase in interference to any of these analog stations.²

There are no Class A TV stations, either analog or digital, which require either pre-transition or post-transition protection consideration from KAWE-DT's post-transition construction permit facilities.

Based on the above information, it is obvious that pre-transition operation by KAWE-DT with its authorized post-transition facilities will not result in new interference to any station requiring protection consideration, either pre-transition or post-transition.

¹The interference ratio to adjacent channel analog stations is actually relaxed when the interfering station changes from analog to digital.

²All five of these other stations will revert to their analog channels for post-transition DTV operation. It was necessary for the facilities authorized by KAWE-DT's construction permit to provide the required protection to all of these post-transition DTV facilities for this construction permit to be granted.