

**Before the
DEPARTMENT OF COMMERCE
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION
Washington, DC 20230**

In the Matter of)
)
Implementation and Administration of a) Docket No. 060512129-6129-01
Coupon Program for Digital-to-Analog)
Converter Boxes)

COMMENTS OF NATIONAL PUBLIC RADIO, INC.

In response to the Notice of Proposed Rulemaking in the above-captioned proceeding,¹ National Public Radio, Inc. ("NPR") hereby submits its Comments requesting that the National Telecommunications and Information Administration ("NTIA") preserve and enhance its investment in noncommercial educational ("NCE") broadcasting by only certifying equipment that will be capable of receiving digital television ("DTV") Channel 6 stations without interference from adjacent reserved-FM spectrum NCE stations and without having to rely on Section 73.525 of the rules of the Federal Communications Commission ("Commission").²

NPR is a non-profit membership corporation which produces and distributes noncommercial educational programming through more than 800 public radio stations nationwide.

¹ Implementation and Administration of a Coupon Program for Digital-to-Analog Converter Boxes, Notice of Proposed Rulemaking and Request for Comments, 71 Fed. Reg. 42067 (July 25, 2006) [hereinafter "Converter Box NPRM "].

² 47 C.F.R. § 73.525.

In addition to broadcasting award winning NPR programming including *All Things Considered*[®], *Morning Edition*[®], and *Talk Of The Nation*[®], NPR's Member stations originate significant amounts of news, information, and cultural programming. NPR also operates the Public Radio Satellite System ("PRSS") and provides representation and other services to its Member stations.

I. Current Digital Television Receiving Equipment, Including Digital-To-Analog Converter Boxes, Should Be Able To Receive Channel 6 Television Station Signals Without Interference From Adjacent Reserved-FM NCE Stations And Without The Severe Restrictions Imposed on Such NCE Stations Under Federal Communications Commission Rules

Since 1985, Commission rules have required reserved-FM band NCE stations to protect the signals of adjacent television Channel 6 stations based on the then-current state of television receivers.³ Even though the Commission recognized that the problem was "a problem in the design of the television receiving system,"⁴ it adopted a regulatory provision generally requiring NCE broadcast stations to limit their facilities and coverage areas to avoid interference to the reception of television Channel 6 stations. The direct consequence of Section 73.525 has been to limit the service that NCE stations throughout the reserved portion of the FM band can offer to the public in the more than fifty television Channel 6 markets that exist across the country.⁵

It is hard to imagine a less efficient spectrum policy. The decision to sacrifice NCE service to protect television Channel 6 reception was intended to be a temporary one, although it

³ See Changes in the Rules Relating to Noncommercial Educational FM Broadcast Stations, Memorandum Opinion and Order, 58 R.R.2d 629, at 630-31 (1985) [hereinafter "Channel 6 Memorandum Opinion and Order"]. In particular, new reserved FM band NCE stations and stations that have sought to modify their facilities since 1985 have been required to demonstrate that the modified facility would not result in new interference to the television Channel 6 reception of no more than a specified number of persons. 47 C.F.R. § 73.525(b)-(c).

⁴ Public Notice, FCC 81-340, rel. July 22, 1981 ("Television sets have been designed in such a way that under certain conditions they are unable to reject the undesired FM signal.").

⁵ See 47 C.F.R. § 606.

has remained in place for more than 20 years.⁶ Moreover, the Commission declined to address the actual cause of the interference problem -- the need for improved receiver performance -- because it believed private industry would develop voluntary standards.⁷ To its credit, NTIA at the time urged the Commission to adopt incentives by decreasing the protection criteria over time or by specifying a schedule for implementing voluntary standards.⁸ The Commission rejected this sensible recommendation, deciding instead to allow television receiver manufacturers to correct the television set design flaw on their own initiative.

Significantly, despite this poor spectrum policy choice and years of Commission indifference, we believe changes in the multimedia landscape and improvements in television set design have finally eliminated the need to require reserved FM band radio stations to protect adjacent television Channel 6 stations. With the advent of a digital television standard that utilizes significantly less transmission power, television sets are believed to be more immune to the type of interference posed by an upper adjacency service.⁹ Compared to the state of television set designs in 1985, modern digital television receiving equipment offers vastly improved interference immunity characteristics. To the extent inferior equipment might still suffer from adjacent

⁶ Channel 6 Memorandum Opinion and Order, 58 R.R. 2d at 629 ("[T]his proceeding has attempted to provide an interim solution.")

⁷ See id., 58 R.R.2d at 632 ("[T]he [consumer electronics] industry appears to have every intention of developing improved immunity standards on its own.").

⁸ See id., 58 R.R.2d at 631.

⁹ See In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service, Sixth Report and Order, 12 FCC Rcd 14,588, 14657-58 (1997) (noting that, according to television industry representatives, "improved performance capabilities of DTV receivers will reduce the potential for interference between DTV Channel 6 and FM radio service.").

spectrum interference in television Channel 6 markets, that equipment is likely to suffer interference otherwise, and NTIA should avoid subsidizing the purchase of such equipment.

Of course, radio has also changed in the period since 1985, particularly with the advent of In-band, On-Channel ("IBOC") digital audio broadcast ("DAB") technology, but that change also should reduce the likelihood and severity of interference to DTV channel 6 stations. While IBOC DAB adds both bandwidth and energy to the host FM signal, the Commission previously found that that relative signal strength, not spectrum width, was the dominant interference factor.¹⁰ Since IBOC is added nominally at -20 dBc¹¹ (1/100th the power) relative to the host FM carrier, the increase in hybrid power is negligible. Accordingly, the transition from analog to digital radio would not justify continuing to restrict NCE service in DTV channel 6 markets.

In short, changes in both television set reception and radio broadcasting have eliminated the need to severely restrict the service coverage areas of NCE stations. While we understand that repeal of the relevant Commission rule is within the Commission's authority, NTIA need not ignore the realities of the technological landscape and assume a problem that no longer exists. Rather, NTIA should recognize that digital-to-analog converter equipment can and should be fully capable of operating unimpeded by nearby NCE radio stations operating on reserved-FM spectrum.

II. Through Its Public Telecommunications Facilities Program, NTIA Has Made A Substantial Investment In NCE Radio, Including Many Stations Operating In Television Channel 6 Markets, And NTIA's Implementation Of The Digital-To-

¹⁰ See Changes in the Rules Relating to Noncommercial, Educational FM Broadcast Stations, Second Further Notice of Proposed Rulemaking, 47 Fed. Reg. 24144, at ¶ 5 (1982) ("The amount of interference resulting from the operation of a noncommercial, educational FM station is fundamentally dependent upon the selectivity of the TV receiver and the signal strength ratio (at the TV receiver) between the TV and FM signals.")

¹¹ dB (decibels) below carrier.

Analog Converter Box Subsidy Should Recognize And Promote That Investment

Congress has long provided direct Federal financial support to public broadcasting. It first did so through the Educational Television Facilities Act,¹² which is the progenitor of the current Public Telecommunications Facilities Program ("PTFP"). With the enactment of the Public Broadcasting Act of 1967 a few years later,¹³ Congress has devoted substantial additional Federal resources to funding the construction of radio stations to serve as local outlets of community expression. Indeed, since 1962, Congress and NTIA have invested \$776 million just for the construction of public broadcast facilities through the PTFP program, including \$121 million for public radio.¹⁴

NTIA is charged with PTFP implementation to achieve several fundamental objectives. Among these are extending the delivery of public telecommunications services to as much of the public as possible by the most efficient and economical means and strengthening the capability of public broadcast stations to provide public telecommunications to the public.¹⁵ Because many NPR Member stations have benefited over the years from PTFP grants, we know how well NTIA has pursued these statutory mandates and how important PTFP grants have been to public radio.

Given NTIA's long term investment in NCE radio, and in furtherance of the PTFP objectives, we submit that NTIA should strive to implement the digital-to-analog converter box assistance program in a way that enhances NTIA's investment in NCE radio as well as encouraging the availability of good quality converter equipment. We further submit that there is

¹² Pub. L. No. 87-447, 76 Stat. 65 (1962).

¹³ Pub. L. No. 90-129, 81 Stat. 368 (1967).

¹⁴ See Appendix.

¹⁵ 47 U.S.C. § 390.

a straight-forward way of accomplishing those mutually compatible ends: certifying digital-to-analog converter boxes that are of sufficient technical quality to withstand nearby NCE radio stations operating in DTV Channel 6 markets. Conditioning certification of digital-to-analog converter boxes in this way is unlikely to result in a substantial additional manufacturing cost, and it is therefore entirely consistent with NTIA's interest in subsidizing a "minimum-capabilities converter box."¹⁶

In the alternative, NTIA might certify digital-to-analog converter boxes that are prone to adjacent spectrum interference, but require the manufacturer to disclose that fact in the packaging and promotion of the individual boxes. Such product labeling would empower consumers to decide how best to use the coupon subsidy. For consumers living in areas unserved by television Channel 6 stations, a lower cost converter box that is prone to interference may still serve their needs. For other consumers, the product disclosure may result in a purchase that maximizes their DTV viewing experience.

Under either alternative, there is little cost to implementing the digital-to-analog convert box program in a way that takes into consideration the Channel 6 interference issue. At the same time, NTIA can further promote the availability of public telecommunications services of NCE radio stations, which has long been a fundamental NTIA mission.

¹⁶ Converter Box NPRM, 71 Fed. Reg. at 42,069.

Conclusion

NPR urges NTIA to certify only those digital-to-analog converter boxes that are capable of receiving DTV Channel 6 stations without interference from adjacent reserved-FM spectrum NCE stations and notwithstanding Section 73.525 of the Commission's rules.

Respectfully submitted,

NATIONAL PUBLIC RADIO, INC.

Gregory A. Lewis /s/

Neal A. Jackson

Vice President for Legal Affairs
General Counsel and Secretary

Michael Starling

Vice President, Chief Technology Officer

Michael Riksen

Vice President for Government Relations

Dana Davis Rehm

Vice President for Member Services

Gregory A. Lewis

Associate General Counsel

635 Massachusetts Avenue, N.W.
Washington, DC 20001
202/513-2050

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Appendix

PUBLIC TELECOMMUNICATIONS FACILITIES PROGRAM FUNDING

Fiscal Year	Authorization	Appropriation	Radio Awards	Radio Amount
1963-1967		\$32		
1968		---		
1969	\$12.5	3.2	11	0.4
1970	15	5.4	10	0.55
1971	15	11	27	1.67
1972	15	13	26	1.52
1973	15	13	30	1.9
1974	25	15.7	27	1.72
1975	30	12	21	1.16
1976	30	12.9	30	2.24
1977	30	14	50	1.36
1978	30	18	59	3.88
1979	40	18	51	4.11
1980	40	23.7	50	4.48
1981	40	21.7	59	4.18
1982	20	18	48	3.92
1983	15	15	45	4.14
1984	12	11.9	31	2.1
1985	---	24	68	4.76
1986	24	22.9	48	3.19
1987	28	20.5	46	3.19
1988	32	21.3	50	2.91
1989	36	20	52	4.94
1990	39	20	47	3.45
1991	42	21.8	55	3.8
1992	42	19.9	54	4.3
1993	42	21.3	42	5.7
1994	42	24	49	3.2
1995		29	59	5.48
1996		15.5	41	2.7
1997		15.25	37	2.87
1998		21	47	2.5
1999		21	37	2.1
2000		21.7	56	4.5
2001		26.5	36	2.7
2002		43.5	52	3.1
2003		43.2	68	4.7
2004		21.8	74	4.4
2005		21.5	73	7.4
2006		21.8	N/A	N/A
Total	\$711.50	\$776	1666	\$121.22

Source: National Telecommunications and Information Administration