

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of)
)
Alcoa, Inc.) WT Docket No. 99-87
)
Request for Limited Extension of)
Narrowbanding Deadline)
)
Implementation of Sections 309(j) and 337 of)
the Communications Act of 1934, as Amended)

To: Chief, Public Safety and Homeland Security Bureau

**REQUEST FOR LIMITED EXTENSION OF
NARROWBANDING DEADLINE**

Alcoa, Inc. (“Alcoa” or the “Company”), by its attorneys and in accordance with Section 1.925¹ of the Federal Communications Commission (“FCC” or “Commission”) rules, respectfully requests an extension of six months, through July 1, 2013, for the Company to migrate from a single wideband UHF channel used at a single Alcoa facility. As detailed herein, the Company satisfies the criteria established by the FCC as relevant in assessing narrowband waiver requests.² The very limited relief requested will not undermine the Commission’s objectives in adopting a mandatory narrowbanding deadline for the bands in question³ or adversely affect the operations of other licensees.

¹ 47 C.F.R. § 1.925.

² See Wireless Telecommunication Bureau, Public Safety and Homeland Security Bureau , and Office of Engineering and Technology Provide Reminder of January 1, 2013 Deadline for Transition to Narrowband Operations in the 150-174 MHz and 421-512 MHz Bands and Guidance for Submission of Requests for Waiver and Other Matters, *Public Notice*, 26 FCC Rcd 9647 (2011) (“NB Waiver Guidance PN”); see also Wireless Telecommunications Bureau and Public Safety and Homeland Security Bureau Provide Supplemental Guidance for Licensees in the 150-174 MHz and 421-512 MHz Bands Seeking Waiver of the January 1, 2013 Narrowbanding Deadline, *Public Notice*, 27 FCC Rcd 1936 (2012).

³ See Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended, *Second Report and Order and Second Further Notice of Proposed Rulemaking*, WT Docket No. 99-87, RM-9332, 18 FCC Rcd

I BACKGROUND

Alcoa is the world's leading producer of primary aluminum and fabricated aluminum, as well as the world's largest miner of bauxite and refiner of alumina. In addition to inventing the modern-day aluminum industry, Alcoa innovation has been behind major milestones in the aerospace, automotive, packaging, building and construction, commercial transportation, consumer electronics and industrial markets for more than 120 years. The Company uses a broad range of telecommunications technologies and systems in operating its various businesses, including a number of wireless systems licensed in the VHF and UHF Part 90 bands.

Alcoa has been aware of and has taken steps to meet the FCC's narrowband deadline for several years. It conducted an audit of licenses for frequencies that were subject to rebanding and identified more than 130 such authorizations at various locations around the county. Each of those licenses has been: (i) modified to reflect that the equipment has been or will be rebanded by January 1, 2013; (ii) consolidated into another authorization whose narrowband status has been updated; or (iii) in a few instances, canceled as no longer needed to support the Company's operations. This effort involved an evaluation and development of a narrowbanding plan – and budget – for more than 650 individual frequencies. Alcoa has communicated regularly with its facilities around the county to ensure that they are implementing the Company's narrowband strategy and, until very recently, believed that it would not require any waiver relief from the FCC.

3034 (2003); Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended, *Third Memorandum Opinion and Order, Third Further Notice of Proposed Rule Making and Order*, WT Docket No. 99-87, RM-9332, 19 FCC Rcd 25045 (2004); Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended, *Order*, WT Docket No. 99-87, RM-9332, 25 FCC Rcd 8861 (2010); *see also* 47 C.F.R. §§ 90.203(j), 90.209(b).

II WAIVER SHOWING: STATION WQGR227 – 462.2625 MHz

Station WQGR227 authorizes the Company to operate a number of very low-power (1 watt ERP) frequencies in and around Alcoa aluminum ingot and can sheet manufacturing facilities in Tennessee and North Carolina. The frequencies are used for a variety of purposes in those plants and are licensed for emission designators that satisfy the narrowband requirements. All of the frequencies on this call sign (and Alcoa believes its other call signs) have been or will be narrowbanded by January 1, 2013, with one exception. The Company discovered earlier this year that frequency 462.2625 MHz (“Frequency”) is used in conjunction with an in-plant automated guided vehicle system that is used to move extremely heavy aluminum coils from one location to another. The 13 vehicles involved in this operation follow specific tracks within the plant and are guided in their movement by sophisticated computer programs. The Frequency is deployed in these vehicles, programmed into legacy equipment that had been manufactured by Cattron, which subsequently was bought by Laird Technologies. The equipment is integrated into this complex automated guided vehicle system, and Alcoa has learned that this particular transmitter is not capable of being narrowbanded.

Alcoa engaged CH2MHill, a global leader in consulting, design, design-build, operations, and program management, several months ago to assist it in identifying an appropriate replacement for the legacy Cattron equipment. That evaluation process was extensive because of the complexity of integrating wireless devices into this very sophisticated, technically challenging automated guided vehicle system. The result was a recommendation just within the past several days to replace wideband 450 MHz transmissions with a wireless network based on the IEEE 802.11A/G Standard. This is a non-licensed solution that operates at 5 GHz in the ISM Band and supports a bandwidth up to 54 Mbps. This system has a limited range, but has fast

maximum speed for data transmission and is not as easily obstructed by the internal building structure.

Now that the appropriate solution has been identified, Alcoa will proceed as quickly as possible with implementation. It is in the process of arranging for and/or approving software programming, material procurement, contractor qualification, hardware installation, and testing procedures. Commissioning schedules are being formulated as well. It is possible that the migration will be completed by January 1, 2013. However, because the Company cannot be certain of the lead time on certain equipment and because it may experience implementation delays in integrating new technology into this complex, automated environment, it respectfully requests a six-month extension of its narrowbanding obligation for this single low-power frequency operating within a single confined plant facility.

The FCC has identified a number of factors it will consider in evaluating narrowband waiver requests.⁴ Alcoa provides the following information in response to the factors the Commission has deemed relevant:

- Steps already taken to plan for, initiate, and complete the transition to narrowband operations.

The Company has undertaken a multi-year effort to inventory all equipment subject to the FCC's narrowband requirements, to physically narrowband or replace all such equipment, and to modify its many licenses to reflect their compliance with the FCC rules. Because of this effort, to the best of its knowledge, Alcoa has been successful in meeting the narrowband requirement on all but the Frequency at a single Company facility.

Once the Company determined that the equipment utilizing the Frequency could not be narrowbanded, it engaged an experienced firm to assist Alcoa in identifying the optimal replacement for that equipment. The Company worked diligently with that firm in seeking an appropriate solution, which it now is able to begin implementing.

- System size and complexity.

⁴ NB Waiver Guidance PN at 3.

Alcoa operates a multiplicity of VHF and UHF two-way radios systems at various facilities across the nation to meet a broad range of operational requirements. The Frequency at issue herein is a small, but critical, component in a highly complex automated guided vehicle system that contributes significantly to the efficiency and safety of the Company's operations at this one Alcoa facility.

- Whether system equipment is narrowband-capable or must be replaced or upgraded.

The equipment operating on the Frequency is not capable of being narrowbanded, but must be replaced.

- Whether the licensee plans additional system upgrades or improvements in addition to converting to narrowband operation.

The Company does not anticipate upgrades or improvements associated with the Frequency except whatever upgrades, if any, that are inherent in the replacement of the equipment.

- Funding sources, including whether the licensee's budget requires government approval or a multi-year budget process.

The Company is prepared to fund the replacement equipment. No governmental approval is needed, and it will not require a multi-year budget approval process.

- Whether the licensee's narrowbanding schedule is affected by neighboring systems due to interoperability relationships or other interdependencies.

Alcoa has no interoperability or interdependencies associated with the Frequency.

- Plans to minimize the negative impact of extended wideband operations on co-channel and adjacent channel operations, including a description of the spectrum environment in the affected area.

The Frequency operates at 1 ERP in a confined facility located near Alcoa, TN, which is approximately seven miles southwest of Knoxville, TN. Given the extremely low power of this transmitter, its use inside a secure plant, and the relative remoteness of that plant, the Company does not believe that continued wideband operation on the Frequency for a limited amount of time will have any impact on third-party co-channel or adjacent channel operations.

- If the licensee plans to migrate to a non-VHF-UHF band (*e.g.*, 700 MHz or 800 MHz), whether it will relinquish VHF/UHF spectrum once it has migrated and the amount of spectrum to be relinquished:

While the Company will discontinue the use of the Frequency in its automated guided vehicle system, it has numerous other applications for low-power channels of this type

within its facility. It expects to deploy a narrowband transmitter on the Frequency for other purposes once the migration process is completed.

The FCC also has directed waiver applicants to provide a proposed timetable for completing rebanding and to include the following elements:

- What steps in the process have been taken or will be taken prior to January 1, 2013.

As described above, Alcoa has identified its replacement spectrum solution, has initiated the many other steps that are required to complete the migration to that solution, and hopes to begin implementation by the end of this month.

- Anticipated dates of commencement and completion of:

- Replacement or retuning of mobiles/portables
- Infrastructure replacement or retuning

The Company anticipates completing its migration off the Frequency no later than July 1, 2013.

III CONCLUSION

Alcoa has been diligent in its efforts to meet the FCC's narrowbanding deadline and, with this limited exception, believes it will be successful in doing so. It has devoted considerable time and resources to ensuring that its facilities will be narrowband-compliant by January 1, 2013. The Frequency at issue herein is integrated into a sophisticated, highly complex automated system that relies on wireless capability to operate. The loss of this wireless link would compromise the safety of operations in this Alcoa facility while its continued operation will have no impact on co-channel or adjacent channel spectrum usage.

For this reason, the Company believes that it satisfies the waiver requirements set out in FCC Rule Section 1.925(b)(3).⁵ The grant of this request would serve the public interest as it would not frustrate the underlying purpose of the narrowbanding rule. Alcoa's continued

⁵ 47 C.F.R. § 1.925(b)(3).

operation on a single frequency transmitting at only 1 ERP within the confines of its own facility will not cause interference to any existing co-channel or adjacent channel licensee or preclude a new applicant from securing the UHF spectrum needed to conduct its business. Moreover, the very unusual application involved, the use of the Frequency as one component in an automated guided vehicle system, and the need to find a suitable alternative for equipment that cannot be narrowbanded, constitutes just the type of unique circumstances that warrant the limited waiver relief requested herein.

Kindly refer any questions or correspondence regarding this matter to the undersigned.

Respectfully submitted,

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October 5, 2012