

Before the
Federal Communications Commission
Washington, D.C. 20554

MM Docket No. 86-264

A Review of Section 73.1690
Regarding Modifications of
Broadcast Transmitters

REPORT AND ORDER

(Proceeding Terminated)

Adopted: October 24, 1986; Released: November 4, 1986

By the Commission:

INTRODUCTION

1. The Commission has before it a *Notice of Proposed Rule Making (Notice)*, and the comments filed in response thereto, concerning the rules and regulations applicable to broadcast licensees who modify their FCC authorized transmitters.¹

BACKGROUND

2. Section 73.1690 of the Commission's Rules contains procedures licensees are to follow when making modifications to their transmitting facilities. Some equipment changes such as transmitter circuitry, antenna height and location, etc., require prior FCC authorization. This is obtained by applying for a construction permit using FCC Forms 301 or 340. Other modifications may already be made without prior authorization, including transmitter or antenna replacement without change in operating power or location. The *Notice* proposed further relaxation of the procedures required for any electrical or mechanical modifications to transmitter circuitry. For example, some TV licensees converting to stereo sound have found it necessary to make minor electrical changes to their aural transmitter to facilitate the installation. Such changes, even though minor, now require filing for a construction permit and awaiting Commission approval before completing the stereo conversion.

3. Because broadcasters have the continuing responsibility to ensure that their equipment is operating properly, it was proposed to remove the FCC filing requirement and to allow electrical and mechanical modifications to transmitters without Commission authorization. To satisfy interference concerns, it was also proposed to require tests on the modified equipment and to require retention of the results at the transmitter site.

4. Comments supported the premise of the *Notice* but did take issue, in some instances, on how best to achieve the intent of the proceeding.² Specifically, the following issues were raised.

1. What tests are necessary to ensure that interference is not increased?

2. What documentation concerning the modification, if any, should be required to be retained by the licensee?

3. Should modifications that facilitate the conversion to AM stereo be permitted without prior authorization?

These issues will be discussed below.

ISSUE 1: REQUIRED TESTS

5. The *Notice* proposed that after a modification to the transmitter is completed, the licensee conduct certain tests to show compliance with applicable Commission rules. The proposed tests are those currently required to gain an FCC issued equipment authorization known as type acceptance or notification. Type acceptance and notification are programs geared to the manufacturers of communications equipment to ensure that the sale and distribution of potentially interference-causing transmission equipment is prevented. The tests necessary for equipment authorization involve the measurement of the RF power output, modulation characteristics, occupied bandwidth, spurious emissions at the antenna terminals, field strength of spurious radiation, and frequency stability, under various environmental conditions.

6. In its comments, NAB stated that these tests would be excessively burdensome to perform. NAB added that this burden, and the burden of documentation, could deter licensees from making suggested or recommended equipment improvements, or from implementing new technology circuit designs. Finally, NAB noted that the proposed rule would actually increase burdens in some cases. It cited several modifications which currently require only equipment performance tests upon completion. Under the proposed rules, these modifications would require the more complicated type acceptance tests.

7. Clearly, the tests as proposed would satisfy any interference concerns, but, upon reflection, we agree that they may be overly stringent for field modifications of a transmission system. The tests are a good tool to ensure that an entire line of communications equipment meets the Commission's minimum level of interference protection. However, once the equipment is purchased, the broadcaster has operating regulations (i.e. power determinations, suppression of spurious emissions, modulation limits, etc.) that ensure the same end.

8. Therefore, we agree that the proposed test requirement in the *Notice* is excessively burdensome. Traditional equipment performance measurements related to spurious and harmonic emissions are more suitable in the broadcast station environment and will similarly assure that additional interference will not be caused by the modifications. Further, we can rely on other operational requirements which licensees must continually meet to control interference.

ISSUE 2: RETENTION OF RECORDS

9. The *Notice* proposed that the results of the tests performed subsequent to the modification be retained at the transmitter site for as long as the modified equipment is used. NAB objected to this proposal, stating that this new requirement would be contrary to the Commission's deregulatory efforts. NAB further stated that such record keeping is clearly in the interest of the licensee absent any regulations.

10. By requiring only equipment performance tests instead of type acceptance tests, the concerns of NAB are largely addressed. The documentation required for equipment performance tests is much less formal than that for type acceptance tests. Further, instead of retaining these results for the life of the transmitter, as was proposed, results of equipment performance tests only need to be retained for two years.

11. We do believe, however, that licensees should retain a simple and basic description or diagram describing the modification. This provides prospective users of the modified equipment with critical information. If no such information exists, any future problems could prove difficult to solve, and could result in interference or lack of service for long periods of time. We believe that whatever minimal burden this requirement imposes upon licensees is outweighed by the benefits (less "downtime") and by the overall reduction of testing and paperwork burdens contained in this rule revision.

ISSUE 3: AM STEREO

12. The most controversial aspect of the *Notice* concerned the installation of AM stereophonic exciters. Motorola, NBC, and NAB all objected to the proposed rules which would have required the filing of FCC Form 301 when interconnecting an AM stereo exciter to an AM transmitter. NBC disputed the statement in the *Notice* that the Commission does not have sufficient experience with AM stereo to make changes at this time. NBC pointed out that there are over twice as many AM stereo stations than there are TV stations providing stereo sound, yet the latter conversion was proposed for deregulation. Further, Motorola pointed out that AM stereo conversions are already permitted under the Commission's Rules, with licensees required only to perform equipment performance measurements. Thus, the proposal of the *Notice* concerning the installation of AM stereo exciters would be more restrictive than the current requirements.

13. Upon review, we agree that the proposed rules regarding AM stereo were contrary to the intent of this proceeding. We see no reason to exclude from the scope of this proceeding the interconnection of type accepted AM stereophonic exciters to a AM transmitter. Therefore, the rules adopted here are crafted to permit this modification without Commission authorization. This is present Commission policy and, thus, merely maintains the status quo.

14. An additional issue, however, is whether modifications to type accepted AM stereo exciters should be deregulated. The concern about AM stereo in this proceeding results from the fact that frequency determining and bandwidth limiting circuits are contained in the exciter itself. This is why AM stereo exciters have remained under the type acceptance equipment authorization program while most other broadcast equipment has been placed in the less stringent program known as notification. It is also why the Commission, through its Mass Media Bureau, released a Public Notice on August 9, 1984, cautioning AM licensees from making unauthorized modifications to their stereo exciters which could void the units' type acceptance.

15. The Public Notice referenced above cautioned licensees from removing audio frequency filters incorporated in the original equipment by the manufacturer. This action, according to the Public Notice, may cause excessive sideband signals in adjacent channels which may

subject the station licensee to forfeiture sanctions. However, this may be said about other modifications to transmission equipment which will be permitted by this action. This proceeding is based on the precept that licensees have the continuing responsibility to ensure that they are operating in accordance with the Commission's Rules and not causing interference. We see no reason why this logic would not include modifications of AM stereo exciters. Therefore, any electrical or mechanical modification to broadcast transmission equipment, including AM stereo exciters will be permitted without prior Commission approval.

16. REGULATORY FLEXIBILITY ACT FINAL ANALYSIS

I. *Need and purpose of this action :*

The Commission revises the rules regarding broadcast transmitter modifications to reduce the regulatory burdens on broadcast station licensees.

II. *Summary of issues raised by the public comments in response to the Initial Regulatory Flexibility Analysis :*

No comments were received in response to the Initial Regulatory Flexibility Analysis.

III. *Significant alternatives considered and rejected :*

The Commission considered all alternatives presented in response to the *Notice*, as reflected in the adopted decision. The commenters offered three alternatives to the proposals of the *Notice*. These were: 1) establish less burdensome equipment tests, 2) do not require the retention of test data, and 3) include AM stereo under the scope of the new rules. The Commission adopted suggestions 1 and 3. The decision to adopt the retention of data requirement was made because some information would be necessary for possible future users of the equipment to fully understand the modified equipment. However, the amount of information to be retained is much less than that originally proposed.

This item will not have a negative impact upon small entities and, in fact, should prove beneficial to licensees of smaller broadcast stations. It removes the necessity of filing potentially costly forms and, further, removes the cost of waiting for a Commission response.

17. The Secretary shall cause a copy of this *Report and Order*, including the Final Regulatory Flexibility Analysis, to be sent to the Chief Counsel for Advocacy of the Small Business Administration, in accordance with Paragraph 603(a) of the Regulatory Flexibility Act (Pub. L. No. 96-354, 94 Stat. 1164, 5 U.S.C. 601 *et seq.*, (1981)).

Paperwork Reduction Act Statement

18. The proposal contained herein has been analyzed with respect to the Paperwork Reduction Act of 1980 and found to decrease the information collection burden which the Commission imposes on the public. This reduction in information collection burden is subject to approval by the Office of Management and Budget as prescribed by the Act.

Actions

19. Accordingly, IT IS ORDERED THAT pursuant to the authority contained in Sections 4(i) and 303(r) of the Communications Act of 1934, as amended, that Parts 2 and 73 of the Commission's Rules ARE AMENDED, effective December 12, 1986 as set forth in the Appendix below.

20. IT IS FURTHER ORDERED THAT this proceeding IS TERMINATED.

21. Further information on this proceeding may be obtained by contacting Michael A. Lewis, Mass Media Bureau, (202) 632-9660.

FEDERAL COMMUNICATIONS COMMISSION

William J. Tricarico
Secretary

APPENDIX

Title 47 CFR Parts 2 and 73 are amended as follows:

PART 2 -- FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

1. The authority citations for Parts 2 and 73 continue to read as follows:

AUTHORITY: 47 U.S.C. 154 and 303.

2. 47 CFR 2.977 is amended by adding new paragraph (d) to read as follows:

§2.977 Changes in notified equipment.

(d) Notwithstanding the provisions of this section, broadcast licensees or permittees are permitted to modify notified transmitters pursuant to §73.1690 of the FCC's Rules.

3. 47 CFR 2.1001 is amended by adding new paragraph (i) to read as follows:

§2.1001 Changes in type accepted equipment.

(1) Notwithstanding the provisions of this section, broadcast licensees or permittees are permitted to modify type accepted equipment pursuant to §73.1690 of the FCC's Rules.

PART 73 -- RADIO BROADCAST SERVICES

4. 47 CFR 73.127 is amended by revising paragraph (f) to read as follows:

§73.127 Use of multiplex transmission.

(f) Installation of the multiplex transmitting equipment must conform with the requirements of §73.1690(e).

5. 47 CFR 73.1225 is amended by revising paragraphs (c) and (d) in their entirety, and by removing paragraph (e) to read as follows:

§73.1225 Station inspections by FCC.

(c) The following records shall be made available by all broadcast stations upon request by representatives of the FCC.

(1) Equipment performance measurements required by §§73.1590 and 73.1690.

(2) The written designations for chief operators and, when applicable, the contracts for chief operators engaged on a contract basis.

(3) Application for modification of the transmission system made pursuant to §73.1690(c).

(4) Informal statements or drawings depicting any transmitter modification made pursuant to §73.1690(e).

(5) Station logs and special technical records.

(d) Commercial and noncommercial AM stations must make the following information also available upon request by representatives of the FCC.

(1) Copy of the most recent antenna or common-point impedance measurements.

(2) Copy of the most recent field strength measurements made to establish performance of directional antennas required by §73.151.

(3) Copy of the partial directional antenna proofs of performance made in accordance with §73.154 and made pursuant to the following requirements:

(i) §73.68, Sampling systems for antenna monitors.

(ii) §73.69, Antenna monitors.

(iii) §73.61, AM directional antenna field strength and proof of performance measurements.

6. 47 CFR 73.1660 is amended by revising paragraphs (b) and (d) to read as follows:

§73.1660 Acceptability of broadcast transmitters.

(b) A permittee or licensee planning to install and use as a main transmitter one not included on the FCC's "Radio Equipment List" must obtain authority to use such a transmitter by filing for a construction permit on FCC Form 301 (FCC Form 340 for noncommercial educational stations). The application must include a complete description and circuit diagram of the transmitter, description of the carrier frequency determining circuits, complete operating parameters, and measurement data as would be required for a grant of type acceptance. A permittee or licensee planning to modify a transmitter which is included on the FCC's "Radio Equipment List" or for which an FCC Form 301 has been submitted and approved, must follow the requirements contained in §73.1690.

(c) * * *

(d) AM stereophonic exciter-generators for interfacing with type accepted or notified AM transmitters may be type accepted upon request from any manufacturer by the procedures described in Part 2 of the FCC Rules. Broadcast licensees may modify their type accepted AM stereophonic exciter-generators in accordance with §73.1690.

7. 47 CFR 73.1690 is amended by revising paragraph (e), by removing paragraphs (b)(1), (b)(2), (e)(1) (e)(2), (e)(3), (e)(4), (e)(5), (e)(6), and (e)(7), and by redesignating paragraphs (b)(3), (b)(4), and (b)(5) as (b)(1), (b)(2), and (b)(3) respectively to read as follows:

§73.1690 Modification of transmission systems.

* * * * *

(e) Any electrical and mechanical modification to authorized transmitting equipment that is not otherwise restricted by the preceding provisions of this section, may be made without FCC notification or authorization. Equipment performance measurements must be made within ten days after completing the modifications (See §73.1590). An informal statement, diagram, etc. describing the modification must be retained at the transmitter site for as long as the equipment is in use.

FOOTNOTES

¹ See Notice of Proposed Rule Making, MM Docket No. 86-264, FCC 86-297, 51 FR 24409, July 3, 1986 (adopted June 19, 1986).

² Comments were filed by Radio Telecom and Technology, Inc. (RTT), CBS Inc. (CBS), the National Association of Broadcasters (NAB), Motorola, Inc. (Motorola), and the National Broadcasting Company, Inc. (NBC).