

SUPPORTING STATEMENT

A. Justification:

1. On August 14, 2013, the Commission adopted the *Third Report and Order and Second Order on Reconsideration* in the matter of An Inquiry Into the Commission's Policies and Rules Regarding AM Radio Service Directional Antenna Performance Verification, MM Docket No. 93-177, FCC 13-115. In the *Third Report and Order* in this proceeding, the Commission harmonized and streamlined the Commission's rules regarding tower construction near AM stations.

In AM radio, the tower itself functions as the antenna. Consequently, a nearby tower may become an unintended part of the AM antenna system, reradiating the AM signal and distorting the authorized AM radiation pattern. Our old rules contained several sections concerning tower construction near AM antennas that were intended to protect AM stations from the effects of such tower construction, specifically, Sections 73.1692, 22.371, and 27.63. These old rule sections imposed differing requirements on the broadcast and wireless entities, although the issue is the same regardless of the types of antennas mounted on a tower. Other rule parts, such as Part 90 and Part 24, entirely lacked provisions for protecting AM stations from possible effects of nearby tower construction. In the *Third Report and Order* the Commission adopted a uniform set of rules applicable to all services, thus establishing a single protection scheme regarding tower construction near AM tower arrays. The *Third Report and Order* also designates "moment method" computer modeling as the principal means of determining whether a nearby tower affects an AM radiation pattern. This serves to replace time-consuming direct measurement procedures with a more efficient computer modeling methodology that is reflective of current industry practice.

Information Collection Requirements Which Have Been Approved By the Office of Management and Budget (OMB) and Have Not Changed Since They Were Approved:

47 C.F.R. 1.30002(a) requires a proponent of construction or modification of a tower within a specified distance of a nondirectional AM station, and also exceeding a specified height, to notify the AM station at least 30 days in advance of the commencement of construction. If the tower construction or modification would distort the AM pattern, the proponent shall be responsible for the installation and maintenance of detuning equipment.

47 C.F.R. 1.30002(b) requires a proponent of construction or modification of a tower within a specified distance of a directional AM station, and also exceeding a specified height, to notify the AM station at least 30 days in advance of the commencement of construction. If the tower construction or modification would distort the AM pattern, the proponent shall be responsible for the installation and maintenance of detuning equipment.

47 C.F.R. 1.30002(c) states that proponents of tower construction or alteration near an AM station shall use moment method modeling, described in § 73.151(c), to determine the effect of the construction or alteration on an AM radiation pattern.

47 C.F.R. 1.30002(f) states that, with respect to an AM station that was authorized pursuant to a directional proof of performance based on field strength measurements, the proponent of the tower construction or modification may, in lieu of the study described in § 1.30002 (c), demonstrate through measurements taken before and after construction that field strength values at the monitoring points do not exceed the licensed values. In the event that the pre-construction monitoring point values exceed the licensed values, the proponent

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may demonstrate that post-construction monitoring point values do not exceed the pre-construction values. Alternatively, the AM station may file for authority to increase the relevant monitoring point value after performing a partial proof of performance in accordance with § 73.154 to establish that the licensed radiation limit on the applicable radial is not exceeded.

47 C.F.R. 1.30002(g) states that tower construction or modification that falls outside the criteria described in paragraphs §1.30002(a) and (b) is presumed to have no significant effect on an AM station. In some instances, however, an AM station may be affected by tower construction notwithstanding the criteria set forth in paragraphs §1.30002(a) and (b). In such cases, an AM station may submit a showing that its operation has been affected by tower construction or alteration. Such showing shall consist of either a moment method analysis or field strength measurements. The showing shall be provided to (i) the tower proponent if the showing relates to a tower that has not yet been constructed or modified and otherwise to the current tower owner, and (ii) to the Commission, within two years after the date of completion of the tower construction or modification. If necessary, the Commission shall direct the tower proponent to install and maintain any detuning apparatus necessary to restore proper operation of the AM antenna.

47 C.F.R. 1.30002(h) states that an AM station may submit a showing that its operation has been affected by tower construction or modification commenced or completed prior to or on the effective date of the rules adopted in this Part pursuant to MM Docket No. 93-177. Such a showing shall consist of either a moment method analysis or of field strength measurements. The showing shall be provided to the current owner and the Commission within one year of the effective date of the rules adopted in this Part. If necessary, the Commission shall direct the tower owner, if the tower owner holds a Commission authorization, to install and maintain any detuning apparatus necessary to restore proper operation of the AM antenna.

47 C.F.R. 1.30002(i) states that a Commission applicant may not propose, and a Commission licensee or permittee may not locate, an antenna on any tower or support structure, whether constructed before or after the effective date of these rules, that is causing a disturbance to the radiation pattern of the AM station, as defined in paragraphs §1.30002(a) and (b), unless the applicant, licensee, or tower owner completes the new study and notification process and takes appropriate ameliorative action to correct any disturbance, such as detuning the tower, either prior to construction or at any other time prior to the proposal or antenna location.

47 C.F.R. 1.30003(a) states that when antennas are installed on a nondirectional AM tower the AM station shall determine operating power by the indirect method (see §73.51). Upon the completion of the installation, antenna impedance measurements on the AM antenna shall be made. If the resistance of the AM antenna changes, an application on FCC Form 302-AM (including a tower sketch of the installation) shall be filed with the Commission for the AM station to return to direct power measurement. The Form 302-AM shall be filed before or simultaneously with any license application associated with the installation.

47 C.F.R. 1.30003(b) requires that, before antennas are installed on a tower in a directional AM array, the proponent shall notify the AM station so that, if necessary, the AM station may determine operating power by the indirect method (see § 73.51) and request special temporary authority pursuant to § 73.1635 to operate with parameters at variance. For AM stations licensed via field strength measurements (see § 73.151(a)), a partial proof of performance (as defined by § 73.154) shall be conducted both before and after construction to establish that the AM array will not be and has not been adversely affected. For AM stations licensed via a moment method proof (see § 73.151(c)), the proof procedures set forth in § 73.151(c) shall be repeated. The results of either the partial proof of performance or the moment method proof shall be filed with the Commission on Form 302-AM before or simultaneously with any license application associated with the installation.

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47 C.F.R.1.30004(a) requires proponents of proposed tower construction or modification to an existing tower near an AM station that are subject to the notification requirement in §§ 1.30002-1.30003 to provide notice of the proposed tower construction or modification to the AM station at least 30 days prior to commencement of the planned tower construction or modification. Notification to an AM station and any responses may be oral or written. If such notification and/or response is oral, the party providing such notification or response must supply written documentation of the communication and written documentation of the date of communication upon request of the other party to the communication or the Commission. Notification must include the relevant technical details of the proposed tower construction or modification, and, at a minimum, also include the following: proponent's name and address; coordinates of the tower to be constructed or modified; physical description of the planned structure; and results of the analysis showing the predicted effect on the AM pattern, if performed.

47 C.F.R. 1.30004(b) requires that a response to a notification indicating a potential disturbance of the AM radiation pattern must specify the technical details and must be provided to the proponent within 30 days.

47 C.F.R. 1.30004(d) states that if an expedited notification period (less than 30 days) is requested by the proponent, the notification shall be identified as "expedited," and the requested response date shall be clearly indicated.

47 C.F.R. 1.30004(e) states that in the event of an emergency situation, if the proponent erects a temporary new tower or makes a temporary significant modification to an existing tower without prior notice, the proponent must provide written notice to potentially affected AM stations within five days of the construction or modification of the tower and cooperate with such AM stations to remedy any pattern distortions that arise as a consequence of such construction.

47 C.F.R. 73.875(c) requires an LPFM applicant to submit an exhibit demonstrating compliance with § 1.30003 or § 1.30002, as applicable, with any modification of license application filed solely pursuant to paragraphs (c) (1) and (c)(2) of this section, where the installation is on or near an AM tower, as defined in § 1.30002.

47 C.F.R. 73.1675(c)(1) states that where an FM, TV, or Class A TV licensee or permittee proposes to mount an auxiliary facility on an AM tower, it must also demonstrate compliance with § 1.30003 in the license application.

47 C.F.R. 73.1690(c) requires FM, TV, or Class A TV station applicants to submit an exhibit demonstrating compliance with § 1.30003 or § 1.30002, as applicable, with a modification of license application, except for applications solely filed pursuant to paragraphs (c)(6) or (c)(9) of this section, where the installation is located on or near an AM tower, as defined in § 1.30002.

The Commission is now seeking a three year extension of this information collection from OMB.

This information collection does not affect individuals or households; thus, there are no impacts under the Privacy Act.

Statutory authority for this collection of information is contained in Section 154(i) of the Communications Act of 1934, as amended.

2. AM stations are licensed by the Commission with specific antenna patterns which control interference between

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stations and assure adequate community coverage. Construction or alteration of towers near AM stations may distort the licensed AM radiation pattern. The data is used by engineers to determine whether nearby tower construction would distort an AM radiation pattern and, therefore, whether the tower requires detuning at the AM frequency.

3. Most, if not all, respondents are using electronic engineering programs to reduce the burden of calculating technical information. The use of information technology may assist respondents with the notification requirements included in this collection.

4. This information collection replaces three similar but conflicting rules. There is no similar data available.

5. In conformance with the Paperwork Reduction Act of 1995, the Commission is making an effort to minimize the burden on all respondents. Therefore, this collection of information will not have a significant economic impact on small entities/businesses.

6. The frequency for this collection of information is determined by the frequency of construction or alteration of towers in the vicinity of AM radio stations.

7. This collection of information is consistent with the guidelines in 5 CFR 1320.5(d)(2).

8. The Commission published a Notice in the Federal Register on October 18, 2016 (81 FR 71726) seeking public comment for the new information collection requirements contained in this collection. No comments were received from the public.

9. No payment or gift was provided to the respondents.

10. There is no need for confidentiality with this collection of information.

11. This information collection does not address any private matters of a sensitive nature.

12. We estimate 1,195¹ tower proponents annually will collect the information described herein. An in-house

¹ The burden for the notification requirements for Sections 1.30004(a) and (d) are accounted for/covered under the burden for Sections 1.30002 and 1.30003.

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engineer and/or an in-house attorney will complete some of these information collection requirements.² The estimated salary for the in-house engineer is \$22/hour and for the salary for the in-house attorney is an average salary of \$40/hour.

Rule Sections	Est. Number of Responses	Est. Hours for In-house Engineer or Attorney	Total Annual Burden Hours	Hourly “In-House” Cost	Total “In-House” Costs
Section 1.30002(a)	200	2 hours	400 hours	\$40/hr.	\$16,000
Section 1.30002(b)	400	2 hours	800 hours	\$40/hr.	\$32,000
Section 1.30002(c)	300	1 hour	300 hours	\$22/hr.	\$6,600
Section 1.30002(f)	100	1 hour	100 hours	\$22/hr.	\$2,200
Section 1.30002(g)	10	1 hour	10 hours	\$22/hr.	\$220
Section 1.30002(h)	10	1 hour	10 hours	\$22/hr.	\$220
Section 1.30002(i)	100	2 hours	200 hours	\$22/hr.	\$4,400
Section 1.30003(a)	20	2 hours	40 hours	\$22/hr.	\$880
Section 1.30003(b)	10	2 hours	20 hours	\$22/hr.	\$440
Section 1.30004(b)	10	1 hour	10 hours	\$22/hr.	\$220
Section 1.30004(e)	5	2 hours	10 hours	\$40/hr.	\$400
Section 73.875(c)	10	2 hours	20 hours	\$40/hr.	\$800
Section 73.1675(c)(1)	10	2 hours	20 hours	\$40/hr.	\$800
Section 73.1690(c)	10	2 hours	20 hours	\$40/hr.	\$800
Totals:	1,195 Responses		1,960 Hours		\$65,980 In-House Cost

These estimates are based on FCC staff's knowledge and familiarity with the availability of the data required.

Total Number of Annual Respondents: 1,195

Total Number of Annual Responses: 1,195

Total Annual Burden Hours: 1,960 Hours

² A consulting engineer and attorney are also needed to complete some of the requirements that in-house staff worked on (see the chart under question 13 for a complete listing).

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Total Annual In-house Cost: \$65,980

13. **Annual Cost Burden:** The respondent will use a consulting engineer for some measurements and a consultant attorney for submission of information to the FCC. We estimate the consulting engineer's salary is \$250/hour and the attorney salary is \$300/hour.³

Rule Sections	Est. Number of Responses	Est. Hours for Engineer/Attorney	Hourly Cost	Annual Costs Burden
Section 1.30002(a) (Detuning)	10	40 (engineer)	\$250/hour	\$100,000
Section 1.30002(b) (Detuning)	20	40 (engineer)	\$250/hour	\$200,000
Section 1.30002(c)	300	2 hours (engineer)	\$250/hour	\$150,000
Section 1.30002(f) (measurements)	100	16 hours (engineer)	\$250/hour	\$400,000
Section 1.30002(f) (increase monitor point values)	5	20 hours (engineer)	\$250/hour	\$25,000
Section 1.30002(f) (increase monitor point values)	5	5 hours (attorney)	\$300/hour	\$7,500
Section 1.30002(g)	10	5 hours (engineer)	\$250/hour	\$12,500
Section 1.30002(g)	10	2 hours (attorney)	\$300/hour	\$6,000
Section 1.30002(h)	10	2 hours (engineer)	\$250/hour	\$5,000
Section 1.30002(i)	100	2 hours (engineer)	\$250/hour	\$50,000
Section 1.30003(a) (impedance measurements)	20	8 hours (engineer)	\$250/hour	\$40,000
Section 1.30003(a) (Form 302-AM)	2	5 hours (engineer)	\$250/hour	\$2,500
Section 1.30003(a) (Form 302-AM)	2	2 hours (attorney)	\$300/hour	\$1,200
Section 1.30003(b) (measurements and Form 302-AM)	10	20 hours (engineer)	\$250/hour	\$50,000
Section 1.30003(b) (measurements and Form 302-AM)	10	2 hours (attorney)	\$300/hour	\$6,000
Section 1.30004(b)	10	2 hours (engineer)	\$250/hour	\$5,000
Section 1.30004(e)	5	2 hours (engineer)	\$250/hour	\$2,500
Section 73.875(c)	10	2 hours (engineer)	\$250/hour	\$5,000
Section 73.1675(c)(1)	10	2 hours (engineer)	\$250/hour	\$5,000

³ The cost burden for the notification requirements for Sections 1.30004(a) and (d) are accounted for/covered under the burden for Sections 1.30002 and 1.30003.

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Section 73.1690(c)	10	2 hours (engineer)	\$250/hour	\$5,000
Total Annual Cost Burden				\$1,078,200

Total Annual Cost Burden: \$1,078,200

14. Cost to the Federal Government: The Commission will use an engineer at the GS-12 step 5 level, \$42.08/hour and a clerk at the GS-7 step 5 level, \$23.72/hour to review and process information collections. The average processing times will range from 0.25 – 16 hours.

Rule Sections	FCC Staff Review Time	Reviewer	Hourly Salary	Number of Reviews	Cost to Federal Government
Section 1.30002(f) (increase monitor point values)	0.25 hours	Clerk	\$23.72	5	\$29.65
	8 hours	Engineer	\$42.08	5	\$1,683.20
Section 1.30002(g)	0.25 hours	Clerk	\$23.72	10	\$59.30
	16 hours	Engineer	\$42.08	10	\$6,732.80
Section 1.30003(a) (Form 302-AM)	0.25 hours	Clerk	\$23.72	2	\$11.86
	16 hours	Engineer	\$42.08	2	\$1,346.56
Section 1.30003(b)	0.25 hours	Clerk	\$23.72	10	\$59.30
	16 hours	Engineer	\$42.08	10	\$6,732.80
Section 73.875(c)	.5 hours	Engineer	\$42.08	2	\$42.08
Section 73.1675(c)(1)	.5 hours	Engineer	\$42.08	2	\$42.08
Section 73.1690(c)	.5 hours	Engineer	\$42.08	2	\$42.08
TOTAL:					\$16,781.71

Total Cost to the Federal Government: \$16,781.71

- 15. There are no program changes or adjustments to this collection.
- 16. The data will not be published.
- 17. OMB approval of the expiration of the information collection will be displayed at 47 C.F.R. Section 0.408.
- 18. There are no exceptions to the Certification Statement.

B. Collections of Information Employing Statistical Methods:

No statistical methods are employed.