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

In the Matter of:	)	
	)	
Review of the Emergency Alert System	)	EB Docket No. 04-296
	)	
Amendments to Part 11 of the	)	
Commission's Rules	)	PS Docket No. 15-94
Regarding the Emergency Alert System	)	
	)	

To: The Commission

FURTHER SUPPLEMENT TO PETITION FOR RECONSIDERATION AND REQUEST FOR LIMITED WAIVER

Sirius XM Radio Inc. ("Sirius XM") hereby further supplements its pending Petition for Partial Reconsideration and Clarification[1] (the "Petition") of the Commission's First Report and Order and Further Notice of Proposed Rulemaking[2] regarding the Emergency Alert System (the "EAS"). Sirius XM filed a "Motion for Leave to Supplement Petition for Reconsideration and Request for Limited Waiver" on June 5, 2017, explaining that – to the extent a waiver is required – that waiver would be exceedingly narrow, limited in time, and the underlying circumstances necessitating a waiver are highly unlikely to occur.[3]

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[1] The Petition was originally filed by XM Radio Inc. ("XM Radio"), with supporting comments filed by Sirius Satellite Radio Inc. ("Sirius"), prior to the 2008 merger of those two entities. For purposes of the instant filing, the petitioning entity is referred to as "Sirius XM."

[2] *Review of the Emergency Alert System*, First Report and Order and Further Notice of Proposed Rulemaking, 20 FCC Rcd 18625 (2005) (the "Order").

[3] Sirius XM Radio Inc., *Motion for Leave to Supplement Petition for Reconsideration and Request for Limited Waiver*, EB Docket No. 04-296, PS Docket No. 15-94, June 5, 2017 (the "Supplement"). In addition, as Sirius XM previously discussed in this proceeding, the requirement to carry weekly and monthly EAS tests on all Sirius XM channels has imposed an excessive, disproportionate, and unnecessary burden on Sirius XM and its subscribers. Sirius XM therefore requests that the Commission bring this obligation into line with EAS testing requirements it applies to broadcasters and other multichannel programming distributors. *See* Letter from James S. Blitz, Vice President, Regulatory Counsel, Sirius XM Radio Inc., to Marlene H. Dortch, Secretary, FCC, EB Docket No. 04-296, July 31, 2014.

This Further Supplement clarifies that 99% of Sirius XM programmed channels deliver EAS alerts in a way that would trigger a downstream broadcaster's own EAS alert; that the only EAS Participants known to monitor Sirius XM use the appropriate channels for this purpose; that Sirius XM will coordinate similarly with any other EAS Participant of which it becomes aware that intends to monitor Sirius XM; and that, pursuant to the process the Commission articulated in its *2018 EAS Order*,[4] Sirius XM has requested confirmation from the Federal Emergency Management Administration ("FEMA") that it will permit EAS Participants to monitor only the two Sirius XM free preview channels.

Under these circumstances, a waiver of the rules may be unnecessary. To the extent the Commission believes a waiver is needed in this circumstance, Sirius XM requests a temporary waiver until the earlier of:

- Thirty months, during which time Sirius XM would study the feasibility of technical or programming changes to its system, as discussed further in Section IV below; or
- FEMA's confirmation that it will permit reception of only the two specified Sirius XM channels for EAS monitoring purposes.

I. BACKGROUND

Sirius XM has a lengthy history of supporting the provision of emergency communications, coordinating with FEMA, and facilitating the operation of the EAS system. Sirius XM delivers timely news and weather information to its customers, in addition to carrying music, sports, talk, and other entertainment programming. As a satellite service available across North America, Sirius XM can be received even in remote areas unserved or underserved by terrestrial networks. Moreover, natural disasters and power outages that may impair operation of terrestrial networks are unlikely to affect the satellite-based Sirius XM service. During emergency situations when reliable reception is especially critical, Sirius XM serves as an

[4] *See Amendment of Part 11 of the Commission's Rules Regarding the Emergency Alert System*, Report and Order, FCC 18-39 (released April 10, 2018) (the "*2018 EAS Order*").

essential source of time-sensitive weather forecasts, news reports, and other potentially life-saving information.

Using these capabilities, Sirius XM routinely makes The Weather Channel available for free to all satellite radios (regardless of whether those radios are subscribed to the Sirius XM service) during hurricanes and other emergencies, as it recently did during Hurricane Florence.[5] Sirius XM took similar steps during Hurricanes Harvey and Irma,[6] both of which, the Commission noted, caused significant power outages with many terrestrial television and radio stations knocked off the air.[7] Even if residents enduring those emergencies lost electricity and terrestrial media services in their homes, those having access to satellite radio in their vehicles could still receive up-to-date information regarding the forecast paths of these dangerous storms and where to turn for emergency assistance.[8]

In partnership with FEMA and other civilian and military organizations, Sirius XM distributed hundreds of portable satellite radios to Puerto Rico in support of relief efforts following Hurricane Maria in 2017. Sirius XM worked with the Integrated Public Alert and Warning System ("IPAWS") Program Management Office to distribute 600 battery-powered satellite radios to provide to those in hurricane-stricken regions of the island. Sirius XM also transmitted live programming from Univision's San Juan radio station WKAQ – a FEMA National Public Warning System station – to further assist hurricane victims. Sirius XM provided WKAQ on its Channel 137, making it available for free on the battery-powered radios

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[5] *See* https://twitter.com/SXM_Help/status/1039545979933024256. Sirius XM also provides updated weather information on its blog. *See* http://blog.siriusxm.com/get-live-hurricane-florence-updates-from-the-weather-channel-on-siriusxm/.

[6] *See* http://blog.siriusxm.com/2017/08/25/hear-the-weather-channel-on-siriusxm-during-hurricane-harvey/; http://blog.siriusxm.com/2017/09/07/listen-to-the-weather-channel-on-siriusxm-during-hurricane-irma/.

[7] *See, e.g.*, Communications Status Report for Areas Impacted by Hurricane Irma (PSHSB, Sept. 11, 2017) (listing eight television stations and 26 radio stations out of service).

[8] *See* "When Hurricanes Strike – Satellites Provide Lifesaving Services Before and After the Storm," https://www.sia.org/wp-content/uploads/2017/10/Mktg17-Hurricane-Document-FINAL.pdf.

distributed on Puerto Rico and on all Sirius satellite radios. Sirius XM also worked with the U.S. Department of State in the hope of providing a similar service to residents in Haiti after the devastating 2010 earthquake, even procuring Special Temporary Authority from the Commission to provide emergency radio programming on the island.[9]

Sirius XM has historically played an active and extensive role in the emergency alert network, including serving as one of a limited number of non-broadcast entities designated as Primary Entry Point ("PEP") stations.[10] As part of a comprehensive arrangement that Sirius XM's predecessor XM Radio entered into with the Primary Entry Point Administrative Council ("PEPAC") and in cooperation with FEMA, XM Radio designed and provided dedicated EAS receivers to be installed at PEP stations and state emergency communications offices ("State EOCs") across the country to ensure their reception of EAS alerts. Sirius XM has been prepared since that time to transmit the Emergency Alert Network's Presidential Message to those receivers using Sirius XM's own satellite infrastructure if the terrestrial communication distribution system is disrupted in a national emergency.

II. ONLY ONE PERCENT OF SIRIUS XM AUDIO CHANNELS ARE IMPACTED BY THIS REQUEST.

Sirius XM explained in the Supplement that a limited waiver of the EAS rules may be needed due to the compression technology it utilizes to improve the efficiency of satellite radio channels. In the event of an EAS activation, a listener to any Sirius XM channel will hear the alert in full and without any degradation. However, the EAS codes and attention signals carried on a very few satellite radio channels on the XM Radio platform may not activate the EAS decoder of an EAS Participant monitoring these channels.[11] Even if the tones and signals on

[9] *See* SAT-STA-20100316-00049.

[10] *See Strengthening the Emergency Alert System (EAS): Lessons Learned from the Nationwide EAS Test*, EB Docket No. 04-296 at 10 n.21 (PSHSB rel. Apr. 14, 2013).

[11] It is not clear that the Commission's Rules even impose an obligation on Sirius XM to activate the EAS decoder of another EAS Participant. Section 11.51(f) of the rules specifies that "analog and digital

these few XM Radio channels do not activate EAS decoders, the audio is readily identifiable as an EAS alert by satellite radio listeners and the EAS transmissions on all other Sirius or XM Radio channels – notably including the default channel carried on non-subscribed radios – would fully trigger any downstream EAS equipment tuned to these channels.

The technology Sirius XM uses to maximize the number of audio channels it provides causes a limited number of XM Radio talk channels to be transmitted in a compressed manner using AMBE codec with a very low bitrate. Channels transmitting at this bitrate cannot encode the alert and preamble tones in a manner accurate enough to trigger a downstream FCC-approved EAS decoder using current EAS technology. This compression technology is currently used on only four fulltime audio channels carried on the legacy XM Radio satellite distribution platform, approximately one percent of the Sirius XM channels available, leaving over 170 fulltime channels on the XM Radio platform and over 160 fulltime channels on the Sirius platform that fully pass though EAS tones capable of triggering downstream EAS decoders. Sirius XM has no reason to believe that any EAS Participant monitors any of these four legacy XM Radio channels.[12]

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broadcast station equipment generating the EAS codes and the Attention Signal shall modulate a broadcast station transmitter so that the signal broadcast to other EAS Participants alerts them that the EAS is being activated or tested at the National, State or Local Area level." 47 C.F.R. § 11.51(f) (emphasis added). In contrast, the language of the SDARS requirement in Section 11.51(i) does not include a similar requirement to trigger other EAS Participants. 47 C.F.R. § 11.51(i). Moreover, the FCC consistently describes the "daisy chain" EAS distribution system as a "broadcast-based distribution system." *See, e.g., 2018 EAS Order* at ¶¶ 3, 4. The Commission does not regulate SDARS as a broadcast service. *Establishment of Rules and Policies for the Digital Audio Radio Satellite Service in the 2310-2360 MHz Frequency Band*, 12 FCC Rcd 5754 (1997).

[12] The Commission can confirm whether any entity monitors Sirius XM for EAS purposes through information that all EAS Participants file annually in the EAS Test Reporting System ("ETRS"), requiring filers to identify all sources monitored for EAS messages. Those reports would also show whether anyone monitoring a Sirius XM channel for a nationwide test has ever had problems with receiving or retransmitting an SDARS EAS signal.

III. WAIVING THE RULES MAY BE UNNECESSARY.

Several alternatives exist that should make it unnecessary for the Commission to grant a waiver in this circumstance.[13]

A. Upon Notice, Sirius XM Can Inform EAS Participants Which Channels to Monitor and Notify Them of Dedicated EAS Receiver.

In circumstances where Sirius XM becomes aware of an EAS Participant's plans to monitor Sirius XM's transmissions for EAS purposes, Sirius XM will work with that Participant to ensure the Participant receives a satellite radio signal that triggers its EAS equipment. Specifically, if Sirius XM learns that an EAS Participant plans to monitor or is monitoring satellite radio transmissions for EAS purposes, Sirius XM will inform any such entity (a) which satellite radio channels it should and should not monitor and (b) that the dedicated EAS receivers XM Radio initially provided may still be available for this purpose. In either instance, no subscription to Sirius XM is required. This provides a low-cost, effective method to ensure that all EAS Participants in the daisy chain that are monitoring Sirius XM receive a signal that will effectively trigger their EAS equipment.

This is in fact the solution used by the sole EAS Participant that, to Sirius XM's knowledge, currently monitors Sirius XM transmissions for EAS purposes. That entity – the Nebraska State Emergency Communications Committee (the "NE SECC") – informs its participants that the only satellite radio channels that they may monitor for EAS purposes are the Sirius Preview Channel (Sirius network, Channel 184) and the XM Preview Channel (XM Radio network, Channel 1), which are the channels that an off-the-shelf satellite radio will default to receiving even without a Sirius XM subscription.[14] The NE SECC's approach demonstrates the

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[13] Moreover, as discussed in footnote 11 above, the FCC rules require broadcasters to generate EAS codes so as to alert other EAS Participants, but the SDARS rules do not include parallel language.

[14] *See* http://www.ne-eas.org/meetingminutes/2018/2018%20State%20EAS%20Plan%20Original%20Numbered%20version.pdf, "Nebraska State Emergency Alert System Plan" (approved March 8, 2018), at p. 12.

effectiveness and practicality of this solution. If Sirius XM becomes aware of any other EAS Participant that contacts Sirius XM or indicates in its ETRS submissions that it is monitoring Sirius XM for EAS purposes, Sirius XM will work with that Participant to similar effect.[15]

B. The Commission Recently Authorized FEMA to Limit the Satellite Channels an EAS Participant Can Monitor.

A recent EAS order may obviate the need for a waiver or may significantly limit the duration of any waiver granted. In that decision, the Commission required State EAS Plans to specify any satellite-based communications resources that a state's EAS Participants intended to use as alternate monitoring sources for emergency messages.[16] Recognizing that technical issues impacted some satellite systems' distribution of EAS messages, the Commission limited State EAS Plans' use of satellite-based resources to only those sources "approved by FEMA as alternate monitoring assignments for the Presidential Alert."[17] To ensure that any entity monitoring Sirius XM for EAS purposes follows the NE SECC's lead and monitors only the free preview channels, Sirius XM recently sent a letter to FEMA's IPAWS office (the "FEMA Letter," a copy of which is provided as Exhibit A hereto), asking FEMA to approve use of Sirius XM satellites as alternative monitoring sources only as to the two free preview channels (Sirius network, Channel 184 and XM Radio network, Channel 1). If FEMA concurs with the FEMA Letter, only the two free preview channels could be monitored for EAS purposes, thereby ensuring any broadcaster using Sirius XM for EAS purposes will receive a signal fully capable of triggering its EAS equipment.

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[15] *See supra* n. 12, regarding use of the Commission's ETRS system to confirm the lack of any other entity that monitors Sirius XM for EAS purposes. Sirius XM does not have access to the ETRS forms filed by other EAS Participants, but Sirius XM is aware of no entity besides the NE SECC that monitors Sirius XM for this purpose.

[16] *See 2018 EAS Order*. The *2018 EAS Order* and footnote 114 requiring FEMA approval for an EAS Participant to monitor satellite-based resources became effective September 4, 2018. *See* 83 Fed. Reg. 37750 (Aug. 2, 2018). Certain parts of the *2018 EAS Order* are not yet in effect, but this does not impact the effective date of footnote 114.

[17] *2018 EAS Order* at ¶ 42, n. 114.

Accordingly, to the extent a waiver was ever needed, it arguably was no longer needed as of September 4, 2018 when satellite-based sources could be monitored only with FEMA approval; alternatively, relief would be needed at most only until FEMA grants the request in the FEMA Letter (see Section IV below).

C. The Availability of the Sirius XM EAS Receiver Also Obviates the Need for Waiver.

As discussed above, XM Radio entered into an arrangement with PEPAC to design and provide dedicated EAS receivers to PEP stations and State EOCs to help facilitate EAS Participants' reception of EAS tones and signals transmitted through satellite radio. Some of these receivers are likely still installed at PEP stations and State EOCs and remain ready for use for their intended purpose. To the extent these receivers are available, this also provides an effective alternative obviating the need for any waiver, consistent with the intention of PEPAC, FEMA, and XM Radio when they initially contracted to develop and deploy the EAS receiver.

IV. IF A WAIVER IS CONSIDERED NECESSARY, IT COULD BE TEMPORARY.

Sirius XM's Supplement requested a 30-month waiver, to the extent waiver for the four low bitrate XM Radio channels is necessary, explaining this is the minimum time period that Sirius XM would need to develop, test, and implement any technical solutions that could potentially address this issue. Specifically, a technical solution that would enable these four low bitrate XM Radio channels to pass an EAS signal capable of triggering downstream EAS equipment could be implemented only after extensive study, testing, and significant effort and may not even be practical. The options identified for initial consideration include changing Sirius XM's programming by eliminating the affected channels entirely, modifying the compression mechanism used on the affected channels, or, in the event of a test or actual national emergency, either force-tuning all Sirius XM channels to a specific channel that can fully pass EAS tones or force-tuning only the affected compressed channels for this purpose. Any

mechanism requiring changes to Sirius XM's technology or platform is likely to have significant drawbacks and disadvantages, potentially including customer disruption, loss of programming options, and significant implementation costs, such as software development, code changes to the uplink delivery system control structure, code deployment, testing, and regression analysis. Design changes may also be needed in the feed system used from the ENDEC to the satellite uplink facilities.

Projects of this sort require careful development and exhaustive testing before implementation. For example, the issues to be addressed related to testing force-tuning include how to signal a satellite radio that it should change channels, whether this mechanism would work effectively on each of the hundreds of satellite radio receiver models operating now and currently under development, how a radio would switch back to normal receiving mode at the end of the test or alert, and what impact this process could have on other satellite radio channels not affected by the force tuning. The force-tuning concepts may also require Sirius XM to briefly hold an EAS message in an internal buffer while the uplink control system completes a reconfiguration and directs a readjustment of all impacted customer receivers. The duration of this delay and its impact on customer radios and EAS compliance will require significant study, and Sirius XM does not yet know whether any of these mechanisms will prove an effective or practical solution. Nonetheless, if a waiver is required and the Commission so requests, the company can provide the Commission with a progress report at the 24-month period documenting the company's efforts to address the issue and describing any remaining impediments to implementation.

Alternatively, Sirius XM requests a temporary waiver only until FEMA acts on the FEMA Letter discussed in Section III.B above. FEMA action on Sirius XM's request will ensure that EAS Participants monitor only channels that will trigger downstream alerts, thereby

satisfying any concern about Sirius XM's ability to carry EAS tones that will function as intended.

To the extent Sirius XM even requires a waiver of the Commission's Rules (see footnote 11 and Section III above), these scenarios qualify as a "special circumstance" where the public interest would be served by waiving the relevant rule.[18] The Commission may waive its rules for "good cause" shown.[19] Good cause may be found when a waiver would not undermine the underlying purposes of the rule and otherwise would serve the public interest;[20] or requiring strict compliance with a rule would be "inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative."[21] Granting a waiver, if necessary, will serve the public interest by providing the "safety valve" necessary based on these unique circumstances where an EAS Participant could monitor 99% of Sirius XM's programmed channels in order to trigger its own downstream alerts.

In conclusion, Sirius XM respectfully requests that the Commission reconsider the Order and grant the Petition as supplemented herein, including granting the limited waiver to the extent it is needed.

Respectfully submitted,

Sirius XM Radio Inc.

/s/ James S. Blitz

James S. Blitz
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September 24, 2018

[18] *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969).

[19] 47 C.F.R. § 1.3.

[20] *See WAIT Radio*, 418 F.2d at 1157; *Northeast Cellular Telephone Co., L.P. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990); *see also* 47 C.F.R. § 1.925(b)(3)(i).

[21] 47 C.F.R. § 1.925(b)(3)(ii).

EXHIBIT A

Letter to Mr. Al Kenyon, Customer Support Branch Chief
Integrated Public Alert and Warning System
Federal Emergency Management Administration

Sirius XM Radio Inc.
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August 22, 2018

Delivered by Email and UPS

Mr. Al Kenyon
Customer Support Branch Chief, IPAWS PMO
Suite 5NW 0309
Federal Emergency Management Agency
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Washington, DC 20472

Re: EAS Alerts on Sirius XM Radio

Dear Mr. Kenyon:

The Federal Communications Commission recently issued a Report and Order intended to increase the effectiveness and efficiency of the Emergency Alert System ("EAS"). *See* Amendment of Part 11 of the Commission's Rules Regarding the Emergency Alert System, FCC 18-39 (released April 10, 2018) (the "Order").

The Order discusses the value of satellite services in the EAS and requires that State EAS Plans specify any satellite-based communications resources that State EAS participants intend to use as alternate monitoring sources for emergency messages. *See* Order, Paragraphs 41-42. However, recognizing technical issues impacting some satellite systems' distribution of those messages, the Commission limited State EAS Plans' use of satellite-based resources to only those sources specifically "approved by FEMA as alternate monitoring assignments for the Presidential Alert." Order, Paragraph 42, n. 114, pp. 14-15.

As we discussed, Sirius XM Radio Inc. ("Sirius XM") requests that FEMA approve use of SiriusXM satellites as alternative monitoring sources only as to the Sirius Preview Channel (Sirius satellite network, Channel 184) and the XM Preview Channel (XM satellite network, Channel 1). Although Sirius XM is a subscription service, not a broadcast service, one of these channels is available and usable for EAS monitoring on every Sirius XM radio, without regard to whether that radio is currently, or ever was, subscribed to a Sirius XM satellite radio service.

Please confirm that FEMA will approve use of only the two specified Sirius XM channels for EAS monitoring purposes. Thank you for your assistance.

Very truly yours,

James S. Blitz
Vice President, Regulatory Counsel