

Federal Communications Commission

§ 4.2

- (a) Forfeiture or other authorized sanction.
- (b) The refusal by foreign countries to accept or refer public correspondence communications to or from the vessel or vessels owned, operated or licensed by the person or entity failing to make payment. This action may be taken at the request of the Commission or independently by the foreign country or coast station involved.
- (c) Further action to recover amounts owed utilizing any or all legally available debt collection procedures.

§ 3.76 Licensee's liability for payment.

The U.S. ship station licensee bears ultimate responsibility for final payment of its accounts. This responsibility cannot be superseded by the contractual agreement between the ship station licensee and the accounting authority. In the event that an accounting authority does not remit proper and timely payments on behalf of the ship station licensee:

- (a) The ship station licensee will make arrangements for another accounting authority to perform future settlements, and
- (b) The ship station licensee will settle any outstanding accounts due to foreign entities.
- (c) The Commission will, upon request, take all possible steps, within the limits of applicable national law, to ensure settlement of the accounts of the ship station licensee. As circumstances warrant, this may include issuing warnings to ship station licensees when it becomes apparent that an accounting authority is failing to settle accounts. See also §§ 3.70 through 3.74.

PART 4—DISRUPTIONS TO COMMUNICATIONS

GENERAL

Sec.

- 4.1 Scope, basis, and purpose.
- 4.2 Availability of reports filed under this part.

REPORTING REQUIREMENTS FOR DISRUPTIONS TO COMMUNICATIONS

- 4.3 Communications providers covered by the requirements of this part.

- 4.5 Definitions of outage, special offices and facilities, 911 special facilities, and 988 special facilities.
- 4.7 Definitions of metrics used to determine the general outage-reporting threshold criteria.
- 4.9 Outage reporting requirements—threshold criteria.
- 4.11 Notification and initial and final communications outage reports that must be filed by communications providers.
- 4.13 [Reserved]
- 4.15 Submarine cable outage reporting.
- 4.17 Mandatory Disaster Response Initiative.
- 4.18 Mandatory Disaster Information Reporting System (DIRS) reporting for Cable Communications, Wireless, Wireline, and VoIP providers.

AUTHORITY: 47 U.S.C. 34-39, 151, 154, 155, 157, 201, 251, 307, 316, 615a-1, 1302(a), and 1302(b); 5 U.S.C. 301, and Executive Order no. 10530.

SOURCE: 69 FR 70338, Dec. 3, 2004, unless otherwise noted.

GENERAL

§ 4.1 Scope, basis, and purpose.

(a) In this part, the Federal Communications Commission is setting forth requirements pertinent to the reporting of disruptions to communications and to the reliability and security of communications infrastructures.

(b) The definitions, criteria, and reporting requirements set forth in Sections 4.2 through 4.13 of this part are applicable to the communications providers defined in Section 4.3 of this part.

(c) The definitions, criteria, and reporting requirements set forth in Section 4.15 of this part are applicable to submarine cable providers who have been licensed pursuant to 47 U.S.C. 34-39.

[81 FR 52362, Aug. 8, 2016]

§ 4.2 Availability of reports filed under this part.

Reports filed under this part will be presumed to be confidential under § 0.457(d)(1) of this chapter. Notice of any requests for inspection of outage reports will be provided pursuant to § 0.461(d)(3) of this chapter except that the Chief of the Public Safety and Homeland Security Bureau may grant, without providing such notice, an

§4.3

47 CFR Ch. I (10-1-24 Edition)

agency of the states, the District of Columbia, U.S. territories, Federal Government, or Tribal Nations direct access to portions of the information collections affecting its respective jurisdiction after the requesting agency has certified to the Commission that it has a need to know this information and has protections in place to safeguard and limit the disclosure of this information as described in the Commission's Certification Form for NORS and DIRS Sharing (Certification Form). Sharing is restricted by the following terms:

(a) Requesting Agencies granted direct access to information collections must report immediately to any affected service providers and to the Commission any known or reasonably suspected unauthorized use or improper disclosure, manage their agency's access to outage reports by managing user accounts in accordance with the Commission's rules, coordinate with the Commission to manage an unauthorized access incident, and answer any questions from the Commission regarding their agency's access, use, or sharing of reports.

(b) Agencies granted direct access to information collections may share copies of the filings, and any confidential information derived from the filings, outside their agency on a strict need-to-know basis when doing so pertains to a specific imminent or on-going public safety event. The agency must condition the recipients' receipt of confidential NORS and DIRS information on the recipients' certification, on a form separate from the Certification Form, that they will treat the information as confidential, not publicly disclose it absent a finding by the Commission that allows them to do so, and securely destroy the information by, at a minimum, securely cross-cut shredding, or machine-disintegrating, paper copies of the information, and irrevocably clearing and purging digital copies, when the public safety event that warrants access to the information has concluded.

(c) Except as permitted pursuant to paragraph (b) of this section, agencies granted direct access to information collections may not share filings, or any confidential information derived

from the filings, with non-employees of the agency, including agency contractors, unless such sharing is expressly authorized in writing by the Commission.

(d) Agencies granted direct access to information collections may disseminate aggregated and anonymized information to the public. Such information must be aggregated from at least four service providers and must be sufficiently anonymized so that it is not possible to identify any service providers by name or in substance.

(e) Consequences for an Agency's failure to comply with these terms may result in, among other measures, termination of direct access to reports by the Commission for a time period to be determined by the Commission based on the totality of the circumstances surrounding the failure.

[86 FR 22825, Apr. 29, 2021]

REPORTING REQUIREMENTS FOR DISRUPTIONS TO COMMUNICATIONS

§4.3 Communications providers covered by the requirements of this part.

(a) *Cable communications providers* are cable service providers that also provide circuit-switched telephony. Also included are affiliated and non-affiliated entities that maintain or provide communications networks or services used by the provider in offering telephony.

(b) *Communications provider* is an entity that provides for a fee to one or more unaffiliated entities, by radio, wire, cable, satellite, and/or lightguide: two-way voice and/or data communications, paging service, and/or SS7 communications.

(c) *IXC or LEC tandem facilities* refer to tandem switches (or their equivalents) and interoffice facilities used in the provision of interexchange or local exchange communications.

(d) *Satellite communications providers* use space stations as a means of providing the public with communications, such as telephony and paging. Also included are affiliated and non-affiliated entities that maintain or provide communications networks or services used by the provider in offering

Federal Communications Commission

§ 4.5

such communications. “Satellite operators” refer to entities that operate space stations but do not necessarily provide communications services directly to end users.

(e) *Signaling System 7 (SS7)* is a signaling system used to control telecommunications networks. It is frequently used to “set up,” process, control, and terminate circuit-switched telecommunications, including but not limited to domestic and international telephone calls (irrespective of whether the call is wholly or in part wireless, wireline, local, long distance, or is carried over cable or satellite infrastructure), SMS text messaging services, 8XX number type services, local number portability, VoIP signaling gateway services, 555 number type services, and most paging services. For purposes of this rule part, SS7 refers to both the SS7 protocol and the packet networks through which signaling information is transported and switched or routed. It includes future modifications to the existing SS7 architecture that will provide the functional equivalency of the SS7 services and network elements that exist as of August 4, 2004. SS7 communications providers are subject to the provisions of this part 4 regardless of whether or not they provide service directly to end users. Also subject to part 4 of the Commission’s rules are affiliated and non-affiliated entities that maintain or provide communications networks or services used by the SS7 provider in offering SS7 communications.

(f) *Wireless service providers* include Commercial Mobile Radio Service communications providers that use cellular architecture and CMRS paging providers. See § 20.3 of this chapter for the definition of Commercial Mobile Radio Service. Also included are affiliated and non-affiliated entities that maintain or provide communications networks or services used by the provider in offering such communications.

(g) *Wireline communications providers* offer terrestrial communications through direct connectivity, predominantly by wire, coaxial cable, or optical fiber, between the serving central office (as defined in the appendix to part 36 of this chapter) and end user location(s). Also included are affiliated

and non-affiliated entities that maintain or provide communications networks or services used by the provider in offering such communications.

(h) *Interconnected Voice over Internet Protocol (VoIP) providers* are providers of interconnected VoIP service. See § 9.3 of this chapter for the definition of interconnected VoIP service. Such providers may be facilities-based or non-facilities-based. Also included are affiliated and non-affiliated entities that maintain or provide communications networks or services used by the provider in offering such communications.

(i) Excluded from the requirements of this part 4 are those equipment manufacturers or vendors that do not maintain or provide communications networks or services used by communications providers in offering communications.

(j) *Covered 988 service providers* are providers that provide the 988 Suicide & Crisis Lifeline with capabilities such as the ability to receive, process, or forward calls. “Covered 988 service provider” shall not include any entity that constitutes a crisis center that participates in the 988 Lifeline, or any entity that offers the capability to originate 988 calls where another service provider delivers those calls to the appropriate crisis center.

[69 FR 70338, Dec. 3, 2004, as amended at 77 FR 25097, Apr. 27, 2012; 83 FR 7401, Feb. 21, 2018; 89 FR 2513, Jan. 16, 2024]

§ 4.5 Definitions of outage, special offices and facilities, 911 special facilities, and 988 special facilities.

(a) *Outage* is defined as a significant degradation in the ability of an end user to establish and maintain a channel of communications as a result of failure or degradation in the performance of a communications provider’s network.

(b) *Special offices and facilities* are defined as entities enrolled in the Telecommunications Service Priority (TSP) Program at priority Levels 1 and 2, which may include, but are not limited to, major military installations, key government facilities, nuclear power plants, and those airports that are listed as current primary (PR) airports in the FAA’s National Plan of Integrated Airports Systems (NPIAS) (as

§4.7

47 CFR Ch. I (10-1-24 Edition)

issued at least one calendar year prior to the outage).

(c) A critical communications outage that potentially affects an airport is defined as an outage that:

(1) Disrupts 50 percent or more of the air traffic control links or other FAA communications links to any airport;

(2) Has caused an Air Route Traffic Control Center (ARTCC) or airport to lose its radar;

(3) Causes a loss of both primary and backup facilities at any ARTCC or airport;

(4) Affects an ARTCC or airport that is deemed important by the FAA as indicated by FAA inquiry to the provider's management personnel; or

(5) Has affected any ARTCC or airport and that has received any media attention of which the communications provider's reporting personnel are aware.

(d) [Reserved]

(e) An outage that potentially affects a 911 special facility occurs whenever:

(1) There is a loss of communications to PSAP(s) potentially affecting at least 900,000 user-minutes and: The failure is neither at the PSAP(s) nor on the premises of the PSAP(s); no reroute for all end users was available; and the outage lasts 30 minutes or more; or

(2) There is a loss of 911 call processing capabilities in one or more E-911 tandems/selective routers for at least 30 minutes duration; or

(3) One or more end-office or MSC switches or host/remote clusters is isolated from 911 service for at least 30 minutes and potentially affects at least 900,000 user-minutes; or

(4) There is a loss of ANI/ALI (associated name and location information) and/or a failure of location determination equipment, including Phase II equipment, for at least 30 minutes and potentially affecting at least 900,000 user-minutes (provided that the ANI/ALI or location determination equipment was then currently deployed and in use, and the failure is neither at the PSAP(s) or on the premises of the PSAP(s)).

(f) An outage that potentially affects a 988 special facility occurs whenever there is a loss of the ability of the 988 Suicide & Crisis Lifeline to receive,

process, or forward calls, potentially affecting at least 900,000 user-minutes and lasting at least 30 minutes duration.

[69 FR 70338, Dec. 3, 2004, as amended at 81 FR 45067, July 12, 2016; 89 FR 2513, Jan. 16, 2024]

§4.7 Definitions of metrics used to determine the general outage-reporting threshold criteria.

(a) *Administrative numbers* are defined as the telephone numbers used by communications providers to perform internal administrative or operational functions necessary to maintain reasonable quality of service standards.

(b) *Assigned numbers* are defined as the telephone numbers working in the Public Switched Telephone Network under an agreement such as a contract or tariff at the request of specific end users or customers for their use. This excludes numbers that are not yet working but have a service order pending.

(c) *Assigned telephone number minutes* are defined as the mathematical result of multiplying the duration of an outage, expressed in minutes, by the sum of the number of assigned numbers (defined in paragraph (b) of this section) potentially affected by the outage and the number of administrative numbers (defined in paragraph (a) of this section) potentially affected by the outage. "Assigned telephone number minutes" can alternatively be calculated as the mathematical result of multiplying the duration of an outage, expressed in minutes, by the number of working telephone numbers potentially affected by the outage, where working telephone numbers are defined as the telephone numbers, including DID numbers, working immediately prior to the outage.

(d) *Optical Carrier 3 (OC3) minutes* are defined as the mathematical result of multiplying the duration of an outage, expressed in minutes, by the number of previously operating OC3 circuits or their equivalents that were affected by the outage.

(e) *User minutes* are defined as:

(1) Assigned telephone number minutes (as defined in paragraph (c) of this section), for telephony, including non-mobile interconnected VoIP telephony,

and for those paging networks in which each individual user is assigned a telephone number;

(2) The mathematical result of multiplying the duration of an outage, expressed in minutes, by the number of end users potentially affected by the outage, for all other forms of communications. For interconnected VoIP service providers to mobile users, the number of potentially affected users should be determined by multiplying the simultaneous call capacity of the affected equipment by a concentration ratio of 8.

(f) *Working telephone numbers* are defined to be the sum of all telephone numbers that can originate, or terminate telecommunications. This includes, for example, all working telephone numbers on the customer's side of a PBX, or Centrex, or similar arrangement.

[69 FR 70338, Dec. 3, 2004, as amended at 77 FR 25097, Apr. 27, 2012; 81 FR 45068, July 12, 2016]

§4.9 Outage reporting requirements—threshold criteria.

(a) *Cable*. All cable communications providers shall submit electronically a Notification to the Commission within 120 minutes of discovering that they have experienced on any facilities that they own, operate, lease, or otherwise utilize, an outage of at least 30 minutes duration that:

- (1) Potentially affects at least 900,000 user minutes of telephony service;
- (2) Affects at least 667 OC3 minutes;
- (3) Potentially affects any special offices and facilities (in accordance with paragraphs (a) through (d) of §4.5); or
- (4) Potentially affects a 911 special facility (as defined in paragraph (e) of §4.5), in which case they also shall notify, as soon as possible by telephone or other electronic means, any official who has been designated by the management of the affected 911 facility as the provider's contact person for communications outages at that facility, and they shall convey to that person all available information that may be useful to the management of the affected facility in mitigating the effects of the outage on callers to that facility. (OC3 minutes and user minutes are defined in paragraphs (d) and (e) of

§4.7.) Not later than 72 hours after discovering the outage, the provider shall submit electronically an Initial Communications Outage Report to the Commission. Not later than thirty days after discovering the outage, the provider shall submit electronically a Final Communications Outage Report to the Commission. The Notification and the Initial and Final reports shall comply with all of the requirements of §4.11.

(b) *IXC or LEC tandem facilities*. In the case of IXC or LEC tandem facilities, providers must, if technically possible, use real-time blocked calls to determine whether criteria for reporting an outage have been reached. Providers must report IXC and LEC tandem outages of at least 30 minutes duration in which at least 90,000 calls are blocked or at least 667 OC3-minutes are lost. For interoffice facilities which handle traffic in both directions and for which blocked call information is available in one direction only, the total number of blocked calls shall be estimated as twice the number of blocked calls determined for the available direction. Providers may use historic carried call load data for the same day(s) of the week and the same time(s) of day as the outage, and for a time interval not older than 90 days preceding the onset of the outage, to estimate blocked calls whenever it is not possible to obtain real-time blocked call counts. When using historic data, providers must report incidents where at least 30,000 calls would have been carried during a time interval with the same duration of the outage. (OC3 minutes are defined in paragraph (d) of §4.7.) In situations where, for whatever reason, real-time and historic carried call load data are unavailable to the provider, even after a detailed investigation, the provider must determine the carried call load based on data obtained in the time interval between the onset of the outage and the due date for the final report; this data must cover the same day of the week, the same time of day, and the same duration as the outage. Justification that such data accurately estimates the traffic that would have been carried at the time of the outage had the outage not occurred must be available on request. If carried call

§4.9

load data cannot be obtained through any of the methods described, for whatever reason, then the provider shall report the outage.

(c) *Satellite.* (1) All satellite operators shall submit electronically a Notification to the Commission within 120 minutes of discovering that they have experienced on any facilities that they own, operate, lease, or otherwise utilize, of an outage of at least 30 minutes duration that manifests itself as a failure of any of the following key system elements: One or more satellite transponders, satellite beams, inter-satellite links, or entire satellites. In addition, all Mobile-Satellite Service ('MSS') satellite operators shall submit electronically a Notification to the Commission within 120 minutes of discovering that they have experienced on any facilities that they own, operate, lease, or otherwise utilize, of an outage of at least 30 minutes duration that manifests itself as a failure of any gateway earth station, except in the case where other earth stations at the gateway location are used to continue gateway operations within 30 minutes of the onset of the failure.

(2) All satellite communications providers shall submit electronically a Notification to the Commission within 120 minutes of discovering that they have experienced on any facilities that they own, operate, lease, or otherwise utilize, an outage of at least 30 minutes duration that manifests itself as:

(i) A loss of complete accessibility to at least one satellite or transponder;

(ii) A loss of a satellite communications link that potentially affects at least 900,000 user-minutes (as defined in §4.7(d)) of either telephony service or paging service; or

(iii) [Reserved]

(iv) Potentially affecting a 911 special facility (as defined in (e) of §4.5), in which case they also shall notify, as soon as possible by telephone or other electronic means, any official who has been designated by the management of the affected 911 facility as the provider's contact person for communications outages at that facility, and they shall convey to that person all available information that may be useful to the management of the affected facil-

47 CFR Ch. I (10-1-24 Edition)

ity in mitigating the effects of the outage on callers to that facility.

(3) Not later than 72 hours after discovering the outage, the operator and/or provider shall submit electronically an Initial Communications Outage Report to the Commission. Not later than thirty days after discovering the outage, the operator and/or provider shall submit electronically a Final Communications Outage Report to the Commission.

(4) The Notification and the Initial and Final reports shall comply with all of the requirements of §4.11.

(5) Excluded from these outage-reporting requirements are those satellites, satellite beams, inter-satellite links, MSS gateway earth stations, satellite networks, and transponders that are used exclusively for intra-corporate or intra-organizational private telecommunications networks, for the one-way distribution of video or audio programming, or for other non-covered services (that is, when they are never used to carry common carrier voice or paging communications).

(d) *Signaling system 7.* Signaling System 7 (SS7) providers shall submit electronically a Notification to the Commission within 120 minutes of discovering that they have experienced on any facilities that they own, operate, lease, or otherwise utilize an outage of at least 30 minutes duration that is manifested as the generation of at least 90,000 blocked calls based on real-time traffic data or at least 30,000 lost calls based on historic carried loads. In cases where a third-party SS7 provider cannot directly estimate the number of blocked calls, the third-party SS7 provider shall use 500,000 real-time lost MTP messages as a surrogate for 90,000 real-time blocked calls, or 167,000 lost MTP messages on a historical basis as a surrogate for 30,000 lost calls based on historic carried loads. Historic carried load data or the number of lost MTP messages on a historical basis shall be for the same day(s) of the week and the same time(s) of day as the outage, and for a time interval not older than 90 days preceding the onset of the outage. In situations where, for whatever reason, real-time and historic data are unavailable to the provider, even

Federal Communications Commission**§4.9**

after a detailed investigation, the provider must determine the carried load based on data obtained in the time interval between the onset of the outage and the due date for the final report; this data must cover the same day of the week and the same time of day as the outage. If this cannot be done, for whatever reason, the outage must be reported. Justification that such data accurately estimates the traffic that would have been carried at the time of the outage had the outage not occurred must be available on request. Finally, whenever a pair of STPs serving any communications provider becomes isolated from a pair of interconnected STPs that serve any other communications provider, for at least 30 minutes duration, each of these communications providers shall submit electronically a Notification to the Commission within 120 minutes of discovering such outage. Not later than 72 hours after discovering the outage, the provider(s) shall submit electronically an Initial Communications Outage Report to the Commission. Not later than thirty days after discovering the outage, the provider(s) shall submit electronically a Final Communications Outage Report to the Commission. The Notification and the Initial and Final reports shall comply with all of the requirements of §4.11.

(e)(1) All wireless service providers shall submit electronically a Notification to the Commission within 120 minutes of discovering that they have experienced on any facilities that they own, operate, lease, or otherwise utilize, an outage of at least 30 minutes duration:

(i) Of a Mobile Switching Center (MSC);
(ii) That potentially affects at least 900,000 user minutes of either telephony and associated data (2nd generation or lower) service or paging service;
(iii) That affects at least 667 OC3 minutes (as defined in §4.7); or
(iv) [Reserved]

(v) That potentially affects a 911 special facility (as defined in paragraph (e) of §4.5), in which case they also shall notify, as soon as possible by telephone or other electronic means, any official who has been designated by the management of the affected 911 facility as

the provider's contact person for communications outages at that facility, and they shall convey to that person all available information that may be useful to the management of the affected facility in mitigating the effects of the outage on callers to that facility.

(2) In determining the number of users potentially affected by a failure of a switch, a wireless provider must multiply the number of macro cell sites disabled in the outage by the average number of users served per site, which is calculated as the total number of users for the provider divided by the total number of the provider's macro cell sites.

(3) For providers of paging service only, a notification must be submitted if the failure of a switch for at least 30 minutes duration potentially affects at least 900,000 user-minutes.

(4) Not later than 72 hours after discovering the outage, the provider shall submit electronically an Initial Communications Outage Report to the Commission. Not later than 30 days after discovering the outage, the provider shall submit electronically a Final Communications Outage Report to the Commission.

(5) The Notification and Initial and Final reports shall comply with the requirements of §4.11.

(f) *Wireline*. All wireline communications providers shall submit electronically a Notification to the Commission within 120 minutes of discovering that they have experienced on any facilities that they own, operate, lease, or otherwise utilize, an outage of at least 30 minutes duration:

(1) Potentially affects at least 900,000 user minutes of either telephony or paging;

(2) Affects at least 667 OC3 minutes;

(3) Potentially affects any special offices and facilities (in accordance with paragraphs (a) through (d) of §4.5); or

(4) Potentially affects a 911 special facility (as defined in paragraph (e) of §4.5), in which case they also shall notify, as soon as possible by telephone or other electronic means, any official who has been designated by the management of the affected 911 facility as the provider's contact person for communications outages at that facility,

§4.9, Nt.

47 CFR Ch. I (10-1-24 Edition)

and the provider shall convey to that person all available information that may be useful to the management of the affected facility in mitigating the effects of the outage on efforts to communicate with that facility. (OC3 minutes and user minutes are defined in paragraphs (d) and (e) of §4.7.) Not later than 72 hours after discovering the outage, the provider shall submit electronically an Initial Communications Outage Report to the Commission. Not later than thirty days after discovering the outage, the provider shall submit electronically a Final Communications Outage Report to the Commission. The Notification and the Initial and Final reports shall comply with all of the requirements of §4.11.

(g) *Interconnected VoIP Service Providers.* (1) All interconnected VoIP service providers shall submit electronically a Notification to the Commission:

(i) Within 240 minutes of discovering that they have experienced on any facilities that they own, operate, lease, or otherwise utilize, an outage of at least 30 minutes duration that potentially affects a 9-1-1 special facility (as defined in (e) of §4.5), in which case they also shall notify, as soon as possible by telephone or other electronic means, any official who has been designated by the management of the affected 9-1-1 facility as the provider's contact person for communications outages at that facility, and the provider shall convey to that person all available information that may be useful to the management of the affected facility in mitigating the effects of the outage on efforts to communicate with that facility; or

(ii) Within 24 hours of discovering that they have experienced on any facilities that they own, operate, lease, or otherwise utilize, an outage of at least 30 minutes duration:

(A) That potentially affects at least 900,000 user minutes of interconnected VoIP service and results in complete loss of service; or

(B) That potentially affects any special offices and facilities (in accordance with paragraphs §4.5(a) through (d)).

(2) Not later than thirty days after discovering the outage, the provider shall submit electronically a Final

Communications Outage Report to the Commission. The Notification and Final reports shall comply with all of the requirements of §4.11.

(h) *Covered 911 service providers.* In addition to any other obligations imposed in this section, within thirty minutes of discovering an outage that potentially affects a 911 special facility (as defined in §4.5), all covered 911 service providers (as defined in §12.4(a)(4) of this chapter) shall notify as soon as possible but no later than thirty minutes after discovering the outage any official who has been designated by the affected 911 special facility as the provider's contact person(s) for communications outages at that facility and convey all available information that may be useful in mitigating the effects of the outage, as well as a name, telephone number, and email address at which the service provider can be reached for follow-up. The covered 911 service provider shall communicate additional material information to the affected 911 special facility as it becomes available, but no later than two hours after the initial contact. This information shall include the nature of the outage, its best-known cause, the geographic scope of the outage, the estimated time for repairs, and any other information that may be useful to the management of the affected facility. All notifications shall be transmitted by telephone and in writing via electronic means in the absence of another method mutually agreed upon in advance by the 911 special facility and the covered 911 service provider.

[69 FR 70338, Dec. 3, 2004, as amended at 77 FR 25097, Apr. 27, 2012; 79 FR 3130, Jan. 17, 2014; 79 FR 7589, Feb. 10, 2014; 81 FR 45068, July 12, 2016; 88 FR 9764, Feb. 15, 2023]

EFFECTIVE DATE NOTE: 1. At 88 FR 9764, Feb. 15, 2023, §4.9 was amended by revising paragraphs (a)(4) and (c)(2)(iv); adding a heading for paragraph (e); and revising paragraphs (e)(1)(v), (f)(4), (g)(1)(i), and (h). These actions were delayed indefinitely.

2. At 89 FR 2513, Jan. 16, 2024, §4.9 was amended by revising paragraphs (a)(4), (c)(2)(iv), (e)(1)(v), (f)(4), and (g)(1)(i) and adding paragraph (i). These actions were delayed indefinitely. For the convenience of the user, the added and revised text is set forth as follows:

Federal Communications Commission

§ 4.9 Outage reporting requirements—threshold criteria.

(a) * * *

(4) Potentially affects a 911 special facility (as defined in § 4.5(e)), in which case they also shall notify the affected 911 facility in the manner described in paragraph (h) of this section. Not later than 72 hours after discovering the outage, the provider shall submit electronically an Initial Communications Outage Report to the Commission. Not later than 30 days after discovering the outage, the provider shall submit electronically a Final Communications Outage Report to the Commission. The Notification and the Initial and Final reports shall comply with all of the requirements of § 4.11.

* * * * *

(a) * * *

(4) Potentially affects a 911 special facility (as defined in § 4.5(e)) or potentially affects a 988 special facility (as defined in § 4.5(f)), in which case they also shall notify the affected facility in the manner described in paragraph (h) or (i) of this section, respectively. Not later than 72 hours after discovering the outage, the provider shall submit electronically an Initial Communications Outage Report to the Commission. Not later than 30 days after discovering the outage, the provider shall submit electronically a Final Communications Outage Report to the Commission. The notification and the initial and final reports shall comply with all of the requirements of § 4.11.

* * * * *

(c) * * *

(2) * * *

(iv) Potentially affecting a 911 special facility (as defined in § 4.5(e)), in which case the affected 911 facility shall be notified in the manner described in paragraph (h) of this section.

* * * * *

(c) * * *

(2) * * *

(iv) Potentially affecting a 911 special facility (as defined in § 4.5(e)) or potentially affecting a 988 special facility (as defined in § 4.5(f)), in which case the affected facility shall be notified in the manner described in paragraph (h) or (i) of this section, respectively.

* * * * *

(e) *Wireless.*

(1) * * *

(v) That potentially affects a 911 special facility (as defined in § 4.5(e)), in which case they also shall notify the affected 911 facility

§ 4.9, Nt.

in the manner described in paragraph (h) of this section.

* * * * *

(e) * * *

(1) * * *

(v) That potentially affects a 911 special facility (as defined in § 4.5(e)) or potentially affects a 988 special facility (as defined in § 4.5(f)), in which case they also shall notify the affected facility in the manner described in paragraph (h) or (i) of this section, respectively.

* * * * *

(f) * * *

(4) Potentially affects a 911 special facility (as defined in § 4.5(e)), in which case they also shall notify the affected 911 facility in the manner described in paragraph (h) of this section. Not later than 72 hours after discovering the outage, the provider shall submit electronically an Initial Communications Outage Report to the Commission. Not later than 30 days after discovering the outage, the provider shall submit electronically a Final Communications Outage Report to the Commission. The Notification and the Initial and Final reports shall comply with all of the requirements of § 4.11.

* * * * *

(f) * * *

(4) Potentially affects a 911 special facility (as defined in § 4.5(e)) or potentially affects a 988 special facility (as defined in § 4.5(f)), in which case they also shall notify the affected facility in the manner described in paragraph (h) or (i) of this section, respectively. Not later than 72 hours after discovering the outage, the provider shall submit electronically an Initial Communications Outage Report to the Commission. Not later than 30 days after discovering the outage, the provider shall submit electronically a Final Communications Outage Report to the Commission. The Notification and the Initial and Final reports shall comply with all of the requirements of § 4.11.

* * * * *

(g) * * *

(1) * * *

(i) Within 240 minutes of discovering that they have experienced on any facilities that they own, operate, lease, or otherwise utilize, an outage of at least 30 minutes duration that potentially affects a 911 special facility (as defined in § 4.5(e)), in which case they also shall notify the affected 911 facility

§4.9, Nt.

in the manner described in paragraph (h) of this section; or

* * * * *

(g) * * *

(1) * * *

(i) Within 240 minutes of discovering that they have experienced on any facilities that they own, operate, lease, or otherwise utilize, an outage of at least 30 minutes duration that potentially affects a 911 special facility (as defined in §4.5(e)) or potentially affects a 988 special facility (as defined in §4.5(f)), in which case they also shall notify the affected facility in the manner described in paragraph (h) or (i) of this section, respectively; or

* * * * *

(h) *911 special facility outage notification.* All cable, satellite, wireless, wireline, interconnected VoIP, and covered 911 service providers (as defined in §9.19(a)(4) of this chapter) shall notify any official at a 911 special facility who has been designated by the affected 911 special facility as the provider's contact person(s) for communications outages at the facility of any outage that potentially affects that 911 special facility (as defined in §4.5(e)) in the following manner:

(1) *Appropriate contact information.* To ensure prompt delivery of outage notifications to 911 special facilities, cable, satellite, wireless, wireline, interconnected VoIP, and covered 911 service providers shall exercise special diligence to identify, maintain, and, on an annual basis, confirm current contact information appropriate for 911 outage notification for each 911 special facility that serves areas that the service provider serves.

(2) *Content of notification.* Cable, satellite, wireless, wireline, interconnected VoIP, and covered 911 service providers' 911 outage notifications must convey all available material information about the outage. For the purpose of this paragraph (h), "material information" includes the following, where available:

(i) An identifier unique to each outage;

(ii) The name, telephone number, and email address at which the notifying cable, satellite, wireless, wireline, interconnected VoIP, or covered 911 service provider can be reached for follow up;

(iii) The name of the cable, satellite, wireless, wireline, interconnected VoIP, or covered 911 service provider(s) experiencing the outage;

(iv) The date and time when the incident began (including a notation of the relevant time zone);

(v) The types of communications service(s) affected;

(vi) The geographic area affected by the outage;

47 CFR Ch. I (10-1-24 Edition)

(vii) A statement of the notifying cable, satellite, wireless, wireline, interconnected VoIP, or covered 911 service provider's expectations for how the outage potentially affects the 911 special facility (e.g., dropped calls or missing metadata);

(viii) Expected date and time of restoration, including a notation of the relevant time zone;

(ix) The best-known cause of the outage; and

(x) A statement of whether the message is the notifying cable, satellite, wireless, wireline, interconnected VoIP, or covered 911 service provider's initial notification to the 911 special facility, an update to an initial notification, or a message intended to be the service provider's final assessment of the outage.

(3) *Means of notification.* Cable, satellite, wireless, wireline, interconnected VoIP, and covered 911 service providers' 911 outage notifications must be transmitted by telephone and in writing via electronic means in the absence of another method mutually agreed upon in writing in advance by the 911 special facility and the covered 911 service provider.

(4) *Timing of initial notification.* Cable, satellite, wireless, wireline, interconnected VoIP, and covered 911 service providers shall provide a 911 outage notification to a potentially affected 911 special facility as soon as possible, but no later than within 30 minutes of discovering that they have experienced on any facilities that they own, operate, lease, or otherwise utilize, an outage that potentially affects a 911 special facility, as defined in §4.5(e).

(5) *Follow-up notification.* Cable, satellite, wireless, wireline, interconnected VoIP, and covered 911 service providers shall communicate additional material information to potentially affected 911 special facilities in notifications subsequent to the initial notification as soon as possible after that information becomes available, but cable, satellite, wireless, wireline and interconnected VoIP providers shall send the first follow-up notification to potentially affected 911 special facilities no later than two hours after the initial contact. After that, cable, satellite, wireless, wireline, interconnected VoIP, and covered 911 service providers are required to continue to provide material information to 911 special facilities as soon as possible after discovery of the new material information until the outage is completely repaired and service is fully restored.

* * * * *

(i) *988 Special facility outage notification.* All cable, satellite, wireless, wireline, interconnected VoIP, and covered 988 service providers shall notify any official at a 988 special facility who has been designated by the affected 988 special facility as the provider's

contact person(s) for communications outages at the facility of any outage that potentially affects that 988 special facility (as defined in §4.5(f)) in the following manner:

(1) *Appropriate contact information.* To ensure prompt delivery of outage notifications to 988 special facilities, covered 988 service providers shall exercise special diligence to identify, maintain, and, on an annual basis, confirm current contact information appropriate for outage notification for each 988 special facility that serves areas that the service provider serves.

(2) *Content of notification.* Covered 988 service providers' outage notifications must convey all available material information about the outage. For the purpose of this paragraph (i), "material information" includes the following, where available:

- (i) An identifier unique to each outage;
- (ii) The name, telephone number, and email address at which the notifying 988 service provider can be reached for follow up;
- (iii) The name of the covered 988 service provider experiencing the outage;
- (iv) The date and time when the incident began (including a notation of the relevant time zone);
- (v) The types of communications service(s) affected;
- (vi) The geographic area affected by the outage;
- (vii) A statement of the notifying covered 988 service provider's expectations for how the outage potentially affects the special facility (e.g., dropped calls or missing metadata);
- (viii) Expected date and time of restoration, including a notation of the relevant time zone;
- (ix) The best-known cause of the outage; and

(x) A statement of whether the message is the notifying covered 988 service provider's initial notification to the special facility, an update to an initial notification, or a message intended to be the service provider's final assessment of the outage.

(3) *Means of notification.* Covered 988 service providers' outage notifications must be transmitted by telephone and in writing via electronic means in the absence of another method mutually agreed upon in writing in advance by the special facility and the service provider.

(4) *Timing of initial notification.* Covered 988 service providers shall provide an outage notification to a potentially affected 988 special facility as soon as possible, but no later than within 30 minutes of discovering that they have experienced on any facilities that they own, operate, lease, or otherwise utilize, an outage that potentially affects a 988 special facility (as defined in §4.5(f)).

(5) *Follow-up notification.* Covered 988 service providers shall communicate additional material information to potentially affected

988 special facilities in notifications subsequent to the initial notification as soon as possible after that information becomes available, but providers shall send the first follow-up notification to potentially affected 988 special facilities no later than two hours after the initial contact. After that, covered 988 service providers are required to continue to provide material information to the special facilities as soon as possible after discovery of the new material information until the outage is completely repaired and service is fully restored.

§4.11 Notification and initial and final communications outage reports that must be filed by communications providers.

Notification and Initial and Final Communications Outage Reports shall be submitted by a person authorized by the communications provider to submit such reports to the Commission. The person submitting the Final report to the Commission shall also be authorized by the provider to legally bind the provider to the truth, completeness, and accuracy of the information contained in the report. Each Final report shall be attested by the person submitting the report that he/she has read the report prior to submitting it and on oath deposes and states that the information contained therein is true, correct, and accurate to the best of his/her knowledge and belief and that the communications provider on oath deposes and states that this information is true, complete, and accurate. The Notification shall provide: The name of the reporting entity; the date and time of onset of the outage; a brief description of the problem; service effects; the geographic area affected by the outage; and a contact name and contact telephone number by which the Commission's technical staff may contact the reporting entity. The Initial and Final Reports shall contain the information required in this part 4. The Initial report shall contain all pertinent information then available on the outage and shall be submitted in good faith. The Final report shall contain all pertinent information on the outage, including any information that was not contained in, or that has changed from that provided in, the Initial report. The Notification and the Initial and Final Communications Outage Reports are to be submitted electronically to the

§ 4.13

47 CFR Ch. I (10-1-24 Edition)

Commission. “Submitted electronically” refers to submission of the information using Commission-approved Web-based outage report templates. If there are technical impediments to using the Web-based system during the Notification stage, then a written Notification to the Commission by e-mail, FAX, or courier may be used; such Notification shall contain the information required. All hand-delivered Notifications and Initial and Final Communications Outage Reports, shall be addressed to the Federal Communications Commission, The Office of Secretary, Attention: Chief, Public Safety & Homeland Security Bureau. Electronic filing shall be effectuated in accordance with procedures that are specified by the Commission by public notice. Notifications and initial reports may be withdrawn under legitimate circumstances, e.g., when the filing was made under the mistaken assumption that an outage was required to be reported.

[71 FR 69037, Nov. 29, 2006, as amended at 80 FR 34324, June 16, 2015]

§ 4.13 [Reserved]

§ 4.15 Submarine cable outage reporting.

(a) *Definitions.* (1) For purposes of this section, “outage” is defined as a failure or significant degradation in the performance of a licensee’s cable service regardless of whether the traffic can be re-routed to an alternate path, where:

(i) An outage of a portion of submarine cable system between submarine line terminal equipment (SLTE) at one end of the system and SLTE at another end of the system occurs for 30 minutes or more; or

(ii) An outage of any fiber pair, including due to terminal equipment, on a cable segment occurs for four hours or more, regardless of the number of fiber pairs that comprise the total capacity of the cable segment.

(2) An “outage” does not require reporting under this section if the outage is caused by announced planned maintenance and the licensee notified its customers in advance of the planned maintenance and its expected duration, except that if the planned maintenance

duration surpasses the shortest announced duration for the planned maintenance and this additional time triggers the requirements in paragraph (a)(1) of this section, the outage becomes reportable as of the time the maintenance exceeds the shortest announced duration for the planned maintenance.

(b) *Outage reporting.* (1) For each outage that requires reporting under this section, the licensee (or Responsible Licensee as designated by a Consortium) shall provide the Commission with a Notification, Interim Report, and a Final Outage Report.

(i) For a submarine cable that is jointly owned and operated by multiple licensees, the licensees of that cable may designate a Responsible Licensee that files outage reports under this rule on behalf of all licensees on the affected cable.

(ii) Licensees opting to designate a Responsible Licensee must jointly notify the Chief of the Public Safety and Homeland Security Bureau’s Cybersecurity and Communications Reliability Division of this decision in writing. Such Notification shall include the name of the submarine cable at issue; and contact information for all licensees on the submarine cable at issue, including the Responsible Licensee.

(2) Notification, Interim, and Final Outage Reports shall be submitted by a person authorized by the licensee to submit such reports to the Commission.

(i) The person submitting the Final Outage Report to the Commission shall also be authorized by the licensee to legally bind the provider to the truth, completeness, and accuracy of the information contained in the report. Each Final report shall be attested by the person submitting the report that he/she has read the report prior to submitting it and on oath deposes and states that the information contained therein is true, correct, and accurate to the best of his/her knowledge and belief and that the licensee on oath deposes and states that this information is true, complete, and accurate.

(ii) The Notification is due within 480 minutes (8 hours) of the time of determining that an event is reportable for the first three years from the effective

date of these rules. After three years from the effective date of the rules, Notifications shall be due within 240 minutes (4 hours). The Notification shall be submitted in good faith. Licensees shall provide: The name of the reporting entity; the name of the cable and a list of all licensees for that cable; the date and time of onset of the outage, if known (for planned events as defined in paragraph (a)(2) of this section, this is the estimated start time/date of the repair); a brief description of the event, including root cause if known; nearest cable landing station; best estimate of approximate location of the event, if known (expressed in either nautical miles and the direction from the nearest cable landing station or in latitude and longitude coordinates); best estimate of the duration of the event, if known; whether the event is related to planned maintenance; and a contact name, contact email address, and contact telephone number by which the Commission's technical staff may contact the reporting entity.

(iii) The Interim Report is due within 24 hours of receiving the Plan of Work. The Interim Report shall be submitted in good faith. Licensees shall provide: The name of the reporting entity; the name of the cable; a brief description of the event, including root cause, if known; the date and time of onset of the outage; nearest cable landing station; approximate location of the event (expressed in either nautical miles and the direction from the nearest cable landing station or in latitude and longitude); best estimate of when the cable is scheduled to be repaired, including approximate arrival time and date of the repair ship, if applicable; a contact name, contact email address, and contact telephone number by which the Commission's technical staff may contact the reporting entity.

(iv) The Final Outage Report is due seven (7) days after the repair is completed. The Final Outage Report shall be submitted in good faith. Licensees shall provide: The name of the reporting entity; the name of the cable; the date and time of onset of the outage (for planned events as defined in paragraph (a)(2) of this section, this is the start date and time of the repair); a brief description of the event, includ-

ing the root cause if known; nearest cable landing station; approximate location of the event (expressed either in nautical miles and the direction from the nearest cable landing station or in latitude and longitude coordinates); duration of the event, as defined in paragraph (a) of this section; the restoration method; and a contact name, contact email address, and contact telephone number by which the Commission's technical staff may contact the reporting entity. If any required information is unknown at the time of submission of the Final Report but later becomes known, licensees should amend their report to reflect this knowledge. The Final Report must also contain an attestation as described in paragraph (b)(2)(i) of this section.

(v) The Notification, Interim Report, and Final Outage Reports are to be submitted electronically to the Commission. "Submitted electronically" refers to submission of the information using Commission-approved Web-based outage report templates. If there are technical impediments to using the Web-based system during the Notification stage, then a written Notification to the Commission by email to the Chief, Public Safety and Homeland Security Bureau is permitted; such Notification shall contain the information required. Electronic filing shall be effectuated in accordance with procedures that are specified by the Commission by public notice. Notifications, Interim reports, and Final Reports may be withdrawn under legitimate circumstances, *e.g.*, when the filing was made under the mistaken assumption that an outage was required to be reported.

(c) *Confidentiality.* Reports filed under this part will be presumed to be confidential. Public access to reports filed under this part may be sought only pursuant to the procedures set forth in 47 CFR 0.461. Notice of any requests for inspection of outage reports will be provided pursuant to 47 CFR 0.461(d)(3).

[81 FR 52363, Aug. 8, 2016, as amended at 85 FR 15740, Mar. 19, 2020; 86 FR 22361, Apr. 28, 2021]

§ 4.17

§ 4.17 Mandatory Disaster Response Initiative.

(a) Facilities-based mobile wireless providers are required to perform, or have established, the following procedures when:

(1) Any entity authorized to declare Emergency Support Function 2 (ESF-2) activates ESF-2 for a given emergency or disaster;

(2) The Commission activates the Disaster Information Reporting System (DIRS); or

(3) The Commission's Chief of the Public Safety and Homeland Security Bureau issues a Public Notice activating the Mandatory Disaster Response Initiative in response to a state request to do so, where the state has also either activated its Emergency Operations Center, activated mutual aid or proclaimed a local state of emergency:

(i) Provide for reasonable roaming under disaster arrangements (RuDs) when technically feasible, where:

(A) A requesting provider's network has become inoperable and the requesting provider has taken all appropriate steps to attempt to restore its own network; and

(B) The provider receiving the request (home provider) has determined that roaming is technically feasible and will not adversely affect service to the home provider's own subscribers, provided that existing roaming arrangements and call processing methods do not already achieve these objectives and that any new arrangements are limited in duration and contingent on the requesting provider taking all possible steps to restore service on its own network as quickly as possible;

(ii) Establish mutual aid arrangements with other facilities-based mobile wireless providers for providing aid upon request to those providers during emergencies, where such agreements address the sharing of physical assets and commit to engaging in necessary consultation where feasible during and after disasters, provided that the provider supplying the aid has reasonably first managed its own network needs;

(iii) Take reasonable measures to enhance municipal preparedness and restoration;

47 CFR Ch. I (10-1-24 Edition)

(iv) Take reasonable measures to increase consumer readiness and preparation; and

(v) Take reasonable measures to improve public awareness and stakeholder communications on service and restoration status.

(b) Providers subject to the requirements of paragraph (a) of this section are required to perform annual testing of their roaming capabilities and related coordination processes, with such testing performed bilaterally with other providers that may foreseeably roam, or request roaming from, the provider during times of disaster or other exigency.

(c) Providers subject to the requirements of paragraph (a) of this section are required to submit reports to the Commission detailing the timing, duration, and effectiveness of their implementation of the Mandatory Disaster Response Initiative's provisions in this section within 60 days of when the Public Safety and Homeland Security Bureau issues a Public Notice announcing such reports must be filed for providers operating in a certain geographic area in the aftermath of a disaster.

(d) Providers subject to the requirements of paragraph (a) of this section are required to retain RuDs for a period of at least one year after their expiration and supply copies of such agreements to the Commission promptly upon Commission request.

(e) Compliance with the provisions of this section is required beginning May 1, 2024.

[87 FR 59339, Sept. 30, 2022, as amended at 89 FR 20869, Mar. 26, 2024]

§ 4.18 Mandatory Disaster Information Reporting System (DIRS) reporting for Cable Communications, Wireless, Wireline, and VoIP providers.

(a) Cable Communications, Wireline, Wireless, and Interconnected VoIP providers shall be required to report their infrastructure status information each day in the Disaster Information Reporting System (DIRS) when the Commission activates DIRS in geographic areas in which they provide service, even when their reportable infrastructure has not changed compared to the prior day. Cable Communications, Wireless, Wireline and Interconnected

Federal Communications Commission

Pt. 5

VoIP providers are subject to mandated reporting in DIRS and shall:

(1) Provide daily reports on their infrastructure status from the start of DIRS activation until DIRS has been deactivated.

(2) Provide a single, final report to the Commission within 24 hours of the Commission's deactivation of DIRS and the termination of required daily reporting, detailing the state of their infrastructure at the time of DIRS deactivation and an estimated date of resolution of any remaining outages.

(b) Cable Communications, Wireline, Wireless, and Interconnected VoIP providers who provide a DIRS report pursuant to paragraph (a) of this section are not required to make submissions in the Network Outage Reporting System (NORS) under this chapter pertaining to any incidents arising during the DIRS activation and that are timely reported in DIRS. Subject providers shall be notified that DIRS is activated and deactivated pursuant to Public Notice from the Commission and/or the Public Safety and Homeland Security Bureau.

(c) This section may contain information collection and/or recordkeeping requirements. Compliance with this section will not be required until this paragraph (c) is removed or contains compliance dates.

[89 FR 25542, Apr. 11, 2024]

PART 5—EXPERIMENTAL RADIO SERVICE

Subpart A—General

Sec.

- 5.1 Basis and purpose.
- 5.3 Scope of service.
- 5.5 Definition of terms.

Subpart B—Applications and Licenses

LICENSE REQUIREMENTS

- 5.51 Eligibility.
- 5.53 Station authorization required.
- 5.54 Types of authorizations available.

GENERAL FILING REQUIREMENTS

- 5.55 Filing of applications.
- 5.57 Who may sign applications.
- 5.59 Forms to be used.
- 5.61 Procedure for obtaining a special temporary authorization.
- 5.63 Supplemental statements required.

- 5.64 Special provisions for satellite systems.
- 5.65 Defective applications.
- 5.67 Amendment or dismissal of applications.
- 5.69 License grants that differ from applications.
- 5.71 License period.
- 5.73 Experimental report.
- 5.77 Change in equipment and emission characteristics.
- 5.79 Transfer and assignment of station authorization for conventional, program, medical testing, Spectrum Horizons, and compliance testing experimental radio licenses.
- 5.81 Discontinuance of station operation.
- 5.83 Cancellation provisions.
- 5.84 Non-interference criterion.
- 5.85 Frequencies and policy governing *frequency* assignment.
- 5.91 Notification to the National Radio Astronomy Observatory.
- 5.95 Informal objections.

Subpart C—Technical Standards and Operating Requirements

- 5.101 Frequency stability.
- 5.103 Types of emission.
- 5.105 Authorized bandwidth.
- 5.107 Transmitter control requirements.
- 5.109 Responsibility for antenna structure painting and lighting.
- 5.110 Power limitations.
- 5.111 Limitations on use.
- 5.115 Station identification.
- 5.121 Station record requirements.
- 5.123 Inspection of stations.
- 5.125 Authorized points of communication.

Subpart D—Broadcast Experimental Licenses

- 5.201 Applicable rules.
- 5.203 Experimental authorizations for licensed broadcast stations.
- 5.205 Licensing requirements, necessary showing.
- 5.207 Supplemental reports with application for renewal of license.
- 5.211 Frequency monitors and measurements.
- 5.213 Time of operation.
- 5.215 Program service and charges.
- 5.217 Rebroadcasts.
- 5.219 Broadcasting emergency information.

Subpart E—Program Experimental Licenses

- 5.301 Applicable rules.
- 5.302 Eligibility.
- 5.303 Frequencies.
- 5.304 Area of operations.
- 5.305 Program license not permitted.
- 5.307 Responsible party.
- 5.308 Stop buzzer.
- 5.309 Notification requirements.