



Co-location information

West Virginia Statewide Interoperable Radio Network (SIRN)

## Introduction

This guide provides an overview of the West Virginia Statewide Interoperable Radio Network, commonly referred to as SORN, and the co-location process and requirements for facilities owned or managed by SORN. SORN is a program of the West Virginia Department of Homeland Security through the Division of Emergency Management.

Information in this guide is general in nature and subject to supplement or revision.

Information in this guide does not replace any terms or conditions in leases or agreements between tenants and SORN.

### Sections

1. History, Vision and Mission
2. Co-location proposal and planning
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## 1 - SIRN History, Vision, Mission and Governance

West Virginia's interoperable and emergency communications environment consists of a statewide 400 megahertz (MHz) ultrahigh frequency (UHF), Project 25 (P25) digital trunked system known as the West Virginia Statewide Interoperable Radio Network ([SIRN](#)). SIRN enables Federal, State, and local agencies to communicate with one another and provides interoperable communications for all public safety agencies in West Virginia on a shared radio network, as well as providing interoperable connectivity to its bordering States.

West Virginia Code [§15-14-2\(b\)](#) defines SIRN as “the interoperable communications network established for the purpose of implementing and maintaining an interoperable communications network for first responders to help assure the safety of all citizens in the event of disaster or emergency.”

The geography of West Virginia constitutes the largest communications challenge within the State. The Appalachian Mountains hinder using higher frequency ranges because more towers tend to be required when operating at higher frequencies. Thus, West Virginia uses the 400 MHz range UHF, P25 digital trunked system as the standard communication system throughout the State due to line- of-sight considerations.

Another factor affecting radio communications in West Virginia is the National Radio Quiet Zone ([NRQZ](#)), which encloses a land area of approximately 13,000 square miles near the Virginia state border. The NRQZ was designated to minimize harmful interference to the National Radio Astronomy Observatory ([NRAO](#)) in Green Bank, West Virginia and [Sugar Grove Station](#), located at the former US Navy Radio Research Observatory near Sugar Grove, WV. Power density thresholds in the radio spectrum that exceed the levels that are harmful to observations at these facilities are not permitted. Power reduction, antenna modification, antenna reconfiguration or location, or selecting different frequencies where the power density limits are different are required for communication in this area. More information on the NRQZ is found in Section 4 of this document.

West Virginia’s vision and mission for improving emergency and public safety communications interoperability:

### Vision:

To continue to enhance, sustain, maintain, coordinate resources, and improve statewide public safety communications interoperability. To continue to establish and develop policies and guidelines and identify technology and resiliency standards affording the citizens of West Virginia safety and enhanced response thereby protecting life, limb, and property.

### Mission:

To maintain, enhance and facilitate resilient interoperable communications for Public Safety in West Virginia.

The governing body associated with interoperable and emergency communications in West Virginia is the Statewide Interoperability Executive Committee ([SIEC](#)). The SIEC is codified through West Virginia State Code [§15-14-5](#). The SIEC identifies new and emerging technologies and standards as well as enhances the coordination of all available resources for public safety communications interoperability. SIEC's standing committees (Technical, Planning, Policy & Procedures, Training/Education/Outreach, Broadband and Conference, along with the Cybersecurity Subcommittee) meet monthly to stay on top of interoperable communications needs within the state and region.

Under W. Va. Code [§15-14-6](#) and [§15-14-7](#), the SIEC works cooperatively with the Director of the West Virginia Emergency Management Division to monitor the implementation and operation of SIREN including all equipment, structures and property. The director, or their designee, may enter into cooperative agreements, land and tower leases, memorandums of understanding/agreement, training contracts or service contracts with political subdivisions of the state, other states, federal agencies, and with public or private agencies for use by the radio network.

*The preceding adapted from WV Code current at the time of publication as well as the West Virginia Statewide Communications Interoperability Plans of 2018 and 2024.*

## 2 - Proposal and planning

The SIRN may, at its discretion, allow non-governmental and non-public safety organizations to co-locate on SIRN towers and grounds. Any co-location is on a noninterference basis to SIRN's primary purpose of implementing and maintaining an interoperable communications network for first responders. The decision of SIRN regarding co-location requests is based on current conditions as well as known plans.

Those wishing to co-locate on SIRN towers or property will be responsible for, at a minimum, the following:

- costs associated with studies, licensing, and permitting necessary for co-location.
- costs associated with ground and tower construction.
- cost of utilities or needed upgrades as well as standby power generation systems (if desired).
- providing appropriate shelter, enclosure, or equipment rack independent from those used by SIRN; and,
- coordination with the National Radio Astronomy Observatory and US Navy Sugar Grove Radio Research Observatory as well as costs incurred with compliance with that coordination. See Section 4.

To begin the process, submit a request to [sirn.license@wv.gov](mailto:sirn.license@wv.gov) with the following information (may be a document attached to an email):

- Name and contact details for the proposed tenant
- Approximate square footage of ground space needed
- Approximate vertical location on the tower desired
- Size, weight, and description of equipment
- Frequency(ies), emission, power, and bandwidth to be utilized
- FCC license call letters, if applicable

The SIEC will review this information to make a preliminary determination of the suitability of the proposal and availability of space. As the SIEC meets once monthly, please allow at least 1 month after the next scheduled meeting date following initial application for a reply.

If the SIEC grants preliminary approval, the proposed tenant will need to submit a more detailed request including at least the following:

- A comprehensive tower structural analysis using ANSI/TIA-222-H Risk Category III (or most current) standards. As SIRN provides critical communications for first responders and emergency management, our towers are in Risk Category III (a facility used for civil or national defense, rescue, or disaster operations).

- Blueprints and/or engineering data for construction of ground spaces and equipment installation on the tower.

There are additional conditions regarding colocation on SORN towers:

- After installation of proposed equipment, the structural analysis must show a minimum 20% load capacity remains for use by SORN or other first responder agencies. Tower structures may be modified, at proposed tenant's expense, after review and SORN approval. This policy applies to modification of existing installations and new installations.
- Newly collocated equipment must be vertically separated from SORN equipment by at least 30 feet. Laterally, no equipment or attachment may overlap SORN equipment.

A lease agreement will need to be negotiated with the State of West Virginia through the West Virginia Emergency Management Division ([EMD](#)); SORN is part of EMD's Mission Support section. This process may take more than a month as all agreements must be approved by the Office of the West Virginia Attorney General.

Prior to construction:

- It is the responsibility of the tenant to secure any necessary construction, zoning, or other permits as well as payment of applicable fees.
- The tenant (or tenant's contractors) must provide proof of worker's compensation insurance for each person.
- The tenant (or tenant's contractors) must provide 24/7 points of contact directly to the individuals working at the site.
- The tenant must provide proof of \$1,000,000.00 liability insurance for both their equipment as well as their employees and contractors.

### 3 – Construction

As SIRN provides mission-critical communications for emergency services, construction activities cannot interfere with normal operation of the site or the overall system. SIRN reserves the right to delay or suspend work as may be necessary for repair or installation of SIRN related equipment.

All construction activities must be conducted without impact to, or interruption of, the normal operation of the SIRN site.

SIRN must be notified when construction begins and a SIRN Technician must be present during construction unless otherwise agreed upon by SIRN.

While technicians from SIRN may be present during your construction, they cannot install or otherwise work on your equipment.

All contractors, laborers, technicians, and other personnel must possess proper certification for the type of work being performed, as well as be fully insured and/or bonded. SIRN reserves the right to request a roster of employees in advance of construction. SIRN also reserves the right to conduct, or request, background investigations of individuals having access to the site, both for construction and during later operation of the co-located equipment.

During construction, the tenant (or tenant's contractors) must notify the SIRN Infrastructure Hotline (833-767-7476) each day when arriving at the site to begin work and when leaving.

In the event of an accident, injury, or any damage at the site, the tenant or contractor must notify the SIRN Infrastructure Hotline within 30 minutes of occurrence. Damage limited to the tenant's or contractor's equipment is exempt from this reporting requirement.

During construction the tenant (or tenant's contractors) must provide their own utilities as well as sanitary facilities.

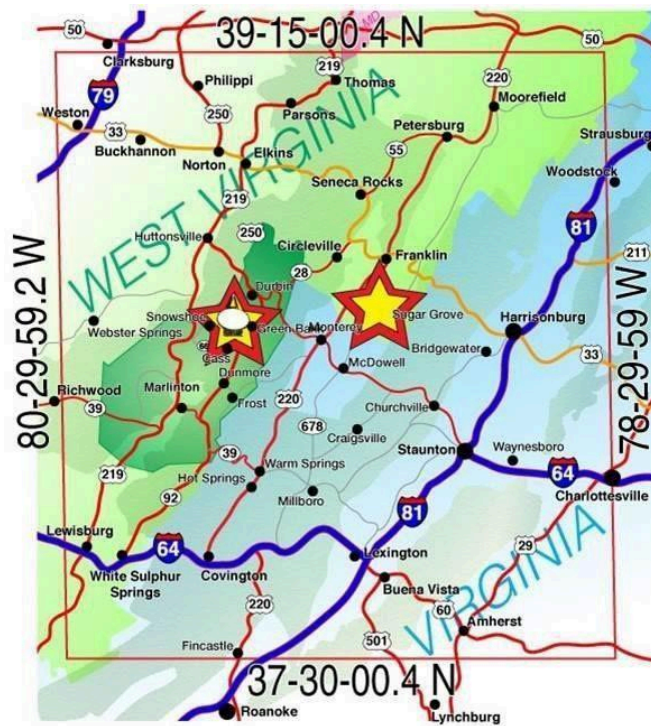
During construction, it is the responsibility of the tenant (or tenant's contractors) to keep the site organized and tidy. Excess items and waste may be held at the site; however, they must be removed at the end of construction.

Any dispersal or spillage of fuels, hazardous, or other reportable materials must be reported to the West Virginia Department of Environmental Protection's [spill notification hotline](#) (800-642-3074) immediately or upon becoming aware of the occurrence.

#### 4 - National Radio Quiet Zone

Nineteen of West Virginia's 55 counties are wholly, or partially, part of an area known as the National Radio Quiet Zone ([NRQZ](#)). The NRQZ was established in 1958 to minimize possible harmful interference to the National Radio Astronomy Observatory ([NRAO](#)) in Green Bank, WV and the US Navy Sugar Grove, WV Radio Research Observatory. West Virginia counties affected by the NRQZ are:

Barbour	Lewis	Preston
Braxton	Mineral	Randolph
Grant	Monroe	Taylor
Greenbrier	Nicholas	Tucker
Hampshire	Pendleton	Upshur
Hardy	Pocahontas	Webster
Harrison		



Map of [NRQZ](#) from NRAO's website

NRQZ coordination is required for all new or modified, permanent, fixed, licensed transmitters inside the NRQZ, as specified for federal transmitters by [NTIA manual](#) Chapter 8.3.9 and for nonfederal transmitters by the FCC in 47 CFR section [1.924](#). Coordination under West Virginia Code Chapter 37A [Radio Astronomy Zoning Act](#) may also be required.

Proof of coordination with NRQZ is required prior to installation of radio equipment.

5 - Points of Contact

West Virginia Emergency Management Division:

Watch Center (24/7/365) 304-558-5380, option 1

SIRN Infrastructure Hotline (24/7/365) 833-767-7476

Fire/Law Enforcement/Emergency Medical Services: ALL WV Counties 911

Non-emergency line for County where tower is located (SIRN can help you obtain this information):

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County	Number
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West Virginia Department of Environmental Protection spill hotline (24/7/365) 800-642-3074

Document revision history

April 2026	Incorporates changes: 1. 20% buffer per EMD policy 07-11-2025 and 2. SIEC Policy 10-14-2025 requiring a 30 foot vertical buffer from SIRN infrastructure
February 2026	Grammatical revisions and hyperlink corrections
March 2025	Original document