National Earthquake Technical Assistance Program (NETAP)

A Resource Guide for Regional and State Earthquake Program Managers

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FEMA

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WHAT IS NETAP?

In accordance with the Earthquake Hazards Reduction Act of 1977 (amended in 2004) and the National Earthquake Hazards Reduction Program (NEHRP), it is the responsibility of the Federal Emergency Management Agency (FEMA) to support "the implementation of a comprehensive earthquake education and public awareness program, including development of materials and their wide dissemination to all appropriate audiences and support public access to locality-specific information that may assist the public in preparing for, mitigating against, responding to and recovering from earthquakes and related disasters."

FEMA developed the National Earthquake Technical Assistance Program (NETAP) as a mechanism for delivering direct assistance to the public through State, territory, or local government entities, to increase their knowledge and ability to analyze their risk, make a plan, and take actions aimed at reducing their earthquake risk and supporting overall community resilience.

NETAP is a program managed by FEMA to rapidly deploy training and technical assistance to organizations and communities. This Resource Guide provides information on how State, territory, or local government entities can request NETAP assistance.

NETAP provides several different types of assistance, described on pages 3 and 4.

HOW TO GET NETAP ASSISTANCE

The process for obtaining NETAP assistance is described in the following steps:

1. Identify Need and Request Assistance.

Applicants are required to complete the NETAP Assistance Request Form (pdf) with the type of assistance requested, the purpose or objectives, scope (e.g., timing, location), anticipated number of participants, and the primary point(s) of contact. Requests should be prepared in consultation with, and when complete be submitted to, the State/Territorial Earthquake Program Manager or other state/territory official with responsibility for earthquake mitigation.

2. Request Sent to FEMA NETAP Manager.

The State/Territorial Earthquake Program Manager forwards the request to the appropriate FEMA Regional Earthquake Program Manager, who coordinates with NETAP Manager at FEMA Headquarters to evaluate the request.

3. Review and Coordination.

The FEMA NETAP Manager, in collaboration with the FEMA Regional Earthquake Program Manager, reviews the training request. Further discussion may be needed with the requestor to clarify anything that is unclear, and to provide guidance on technical information about the available trainings.

4. Approval.

Based on the review and coordination process, a final decision is made by the FEMA NETAP Manager based on program funding and priorities, target outcomes and benefits of the request, and other relevant factors such as local earthquake risk, capacity of the requesting organization to execute the proposal in partnership with FEMA, and how well the assistance aligns with local hazard mitigation plans.

5. Delivery.

If approved, the FEMA NETAP Manager, through the NETAP Contractor, the Applied Technology Council (ATC), deploys approved contract resources in collaboration with the FEMA Regional and State/Territorial Earthquake Program Managers (and the requesting organization, if it is not the State/Territory).

6. Performance Reporting.

Immediately after the implementation of the NETAP training or other type of assistance, the FEMA Regional or State/Territorial Earthquake Program Manager (or requesting organization) submits a written report on progress or final accomplishments. If NETAP assistance provided was in-person training, the contracted instructor will collect completed evaluation forms from participants.

7. Certificate of Participation.

Upon request, the primary point(s) of contact, or the FEMA Regional or State/Territorial Earthquake Program Manager or other State/Territory official, may request Certificates of Participation for training participants. In order to prepare certificates, the primary point(s) of contact must provide a database of participants in Microsoft Word or Excel format to the NETAP Contractor. Webinar participants may request a Certificate of Participation via e-mail from the primary point of contact.

WHAT IS INCLUDED IN NETAP ASSISTANCE?

NETAP provides in-person and webinar trainings, technical assistance, and special project support.

Training

NETAP provides trainings and associated materials, available for in-person presentation, webinar, or independent study. Topics pertain to a variety of earthquake risk reduction activities and stakeholders.

When the assistance consists of trainings presented to local groups, NETAP typically pays for the salary and travel expenses of an approved instructor and for any educational materials

used by the training participants and instructor. The State, territorial or local government requesting the training, in cooperation with any partnering organizations, is responsible for local logistical requirements (e.g., meeting space, audio/visual equipment, refreshments, recruitment and registration of students). See "What Does the Organization Requesting the Training Have to Do?" below for more information on the requirements for the requestor.

Some training programs are conducted in webinar format, in an effort to maximize the number of participants at a lower cost. Webinars presented by NETAP are free of charge and do not require a request from a specific State, territory or local government. A copy of the webinar speaker's presentation will be available for download by participants at the webinar site.

Technical Assistance

NETAP provides technical advice and shared expertise that help local communities design, develop, and implement earthquake risk reduction projects.

Special Project Support

Local earthquake mitigation projects or other original, unique, or replicable earthquake risk reduction initiatives may be funded under NETAP as a special project. Support is dependent on funding availability and the benefits and outcomes of the proposed project. A special project shall not only provide local benefits, but also potentially contribute or support national level National Earthquake Hazards Reduction Program (NEHRP) efforts, such as guidance development. Further, such special projects also need to demonstrate a local commitment and contribution towards the end goal of reducing future losses. For example, FEMA has funded the rapid visual screening of a specific population of buildings, such as emergency response facilities. Following the screening, the local government has committed to funding the retrofit of those buildings found to be seismically hazardous.

When providing technical assistance or special project support, NETAP normally delivers or funds the delivery of some portion of the expertise or support required. The respective contributions of FEMA, State, territorial or local governments, and other involved organizations are established through ad hoc negotiations for these particular cases.

WHAT DOES THE ORGANIZATION REQUESTING THE TRAINING HAVE TO DO?

Once the training(s) have been approved, the organization requesting the training(s), in cooperation with any partnering organizations, are in charge of the following:

- Advertisement and recruitment of participants for the training. Flyers for use by the requesting organization(s) to advertise the training(s) can be found here. In order to make the best use of NETAP funds and to reach as many people as possible, in-person trainings require a minimum of 25 participants.
- All local logistics, including venue reservation, and audio/visual equipment (projector and screen, as well as microphone and speakers when necessary).
- Submittal of completed NETAP Training Materials Request Form to the NETAP Contractor at least 3 weeks in advance of the scheduled training(s) to ensure that all training materials arrive in time for the training(s). This form will be provided to the requestor once the training(s) are confirmed.
- Storage of course training materials until the course is delivered.
- If Certificates of Participation are requested, an electronic roster of participant names in Excel or Word format should be provided to the NETAP Contractor. If the requestor would like to distribute the certificates during the training(s), they should submit the electronic roster of registered participants at least 3 working days in advance of the scheduled training(s). Certificates can also be generated by the NETAP Contractor after the completion of the training(s). In either case, the requestor is responsible for distributing the certificates to the participants.
- Refreshments and/or snacks for participants during breaks (optional).

AVAILABLE NETAP COURSES

Table 1 below provides an overview of available training courses and their duration. Some trainings are available both in-person and webinar format, and some trainings are only available in one, as indicated in the table.

Table 1 List of NETAP Training Courses

Course Number	Course Title	In-Person Training Duration	Webinar Duration
FEMA E-74	Reducing the Risks of Nonstructural Earthquake Damage	6 hours with class exercise	1.5 hours
FEMA E-74 and FEMA P-909	Reducing the Risks of Nonstructural Earthquake Damage and Train the Trainer: Home and Business Earthquake Safety and Mitigation	8 hours (without class exercise for FEMA E-74)	N/A
FEMA 232	Homebuilders' Guide to Earthquake-Resistant Design and Construction	6 hours	N/A
FEMA 395	Earthquake Safety and Mitigation for Schools	4 hours	1.5 hours
FEMA P-50 and FEMA P-50-1	Simplified Seismic Assessment and Retrofit Guidelines of Detached, Single-Family, Wood-Frame Dwellings	6 hours	1.5 hours
FEMA P-58	Seismic Performance Assessment of Buildings	N/A	Two 1.5-hour sessions
FEMA P-154 and ATC-20	Rapid Visual Screening of Buildings for Potential Seismic Hazards (Third Edition) and Postearthquake Safety Evaluation of Buildings	8 hours	N/A
FEMA P-154 and ROVER	Rapid Visual Screening of Buildings for Potential Seismic Hazards (Third Edition), and Rapid Observation of Vulnerability and Estimation of Risk	6 hours	N/A
FEMA P-154, ATC-20, and ROVER	Rapid Visual Screening of Buildings for Potential Seismic Hazards (Third Edition), Postearthquake Safety Evaluation of Buildings, and Rapid Observation of Vulnerability and Estimation of Risk	2 days (Day 1: 6 hours for FEMA P-154 and ROVER; Day 2: 5 hours for ATC-20 and ROVER)	N/A
FEMA P-593	Seismic Rehabilitation Training for One- and Two-Family Wood-Frame Dwellings	6 hours	N/A
FEMA P-646	Guidelines for Design of Structures for Vertical Evacuation from Tsunamis	N/A	1.5 hours
FEMA P-749	Earthquake-Resistant Design Concepts: An Introduction to the NEHRP Recommended Seismic Provisions for New Buildings and Other Structures	6 hours	N/A
FEMA P-767	Earthquake Mitigation for Hospitals	8 hours	N/A
FEMA P-807	Seismic Evaluation and Retrofit of Multi-Unit Wood-Frame Buildings with Weak First Stories	N/A	1.5 hours
FEMA P-909	Home and Business Earthquake Safety and Mitigation: Train the Trainer	3 hours	N/A
FEMA P-1019	Emergency Power Systems for Critical Facilities	N/A	1.5 hours
FEMA P-1024, FEMA South Napa Earthquake Recovery Advisories	Performance of Buildings and Nonstructural Components in the 2014 South Napa Earthquake	2 hours	1.5 hours

Table 2 below provides information on the target audience for each training course. The information in the table is not meant to limit participation, but is provided for guidance purposes only.

Table 2 Matrix of User Interest

Training	Architects	Building Officials	Building Owners	Business Owners	Contractors	Emergency Managers	Engineers	Facility Managers	Home/Property Owners	Risk Analysts	School Administrators	Volunteers/ General Public
FEMA E-74	•	•	•	•	•	•	•	•	•	•	•	
FEMA E-74 & FEMA P-909			•	•	•	•			•			•
FEMA 232	•	•	•		•		•		•			
FEMA 395							•	•			•	
FEMA P-50 & FEMA P-50-1	•	•	•	•	•		•		•			
FEMA P-58							•			•		
FEMA P-154 & ATC-20	•	•	•			•	•	•	•			•
FEMA P-154 & ROVER	•	•	•			•	•	•	•	•		•
FEMA P-154, ATC-20, & ROVER	•	•	•			•	•	•	•	•		•
FEMA P-593	•	•		•	•	•	•		•			•
FEMA P-646	•	•				•	•					
FEMA P-749	•	•					•	•				
FEMA P-767	•	•	•			•	•	•		•		
FEMA P-807		•					•					
FEMA P-909			•	•	•	•			•			•
FEMA P-1019	•				•	•	•	•				
FEMA P-1024	•	•	•	•	•		•		•		•	

DESCRIPTION OF NETAP TRAINING COURSES

FEMA E-74, Reducing the Risks of Nonstructural Earthquake Damage
(In-Person Training and Live Webinar)

The training on FEMA E-74, *Reducing the Risks of Nonstructural Earthquake Damage*, describes the sources of nonstructural earthquake damage and effective methods of reducing such damage. Nonstructural failures have accounted for the majority of damage in several recent U.S. earthquakes. It is critical to raise awareness of potential nonstructural hazards, the costly consequences of nonstructural failures, and the opportunities that exist to limit future losses. Nonstructural components of buildings include all elements that are not part of the structural system; that is, the architectural, mechanical, electrical, and plumbing systems, as well as furniture, fixtures, equipment, and other contents. The webinar on FEMA E-74 is a condensed version of the in-person training and does not include a class exercise.

Materials provided for the in-person training include:

- FEMA E-74 CD, which includes the following in electronic format: FEMA E-74 report, *Reducing the Risks of Nonstructural Earthquake Damage*

The FEMA E-74 report may be accessed at no cost at the following link: https://www.fema.gov/media-library/assets/documents/21405.

FEMA 232, Homebuilders' Guide to Earthquake Resistant Design and Construction
(In-Person Training)

The training on FEMA 232, *Homebuilders' Guide to Earthquake Resistant Design and Construction*, presents seismic design and construction guidance for one- and two-family light-frame residential structures, including information that supplements the 2003 edition of the *International Residential Code*. The FEMA 232 report may be used by homebuilders, homeowners, and other non-engineers.

Materials provided for the in-person training include:

- FEMA 232 report, *Homebuilders' Guide to Earthquake Resistant Design and Construction* (printed copy)

The FEMA 232 report may be downloaded at no cost at the following link: http://www.fema.gov/library/viewRecord.do?id=2103.

FEMA 395, Earthquake Safety and Mitigation for Schools

(In-Person Training and Live Webinar)

The FEMA 395 training on *Earthquake Safety and Mitigation for Schools* is for school officials, teachers, facility managers, and other stakeholders interested in reducing earthquake risks in local schools. Numerous school buildings located in multiple States and U.S. territories are vulnerable to earthquake damage that threatens safety and continued operations. In this training, participants learn how to: (1) assess and analyze seismic risks; (2) develop actionable plans for reducing and managing these risks; (3) secure nonstructural elements of school facilities; and (4) use "incremental seismic rehabilitation" as an affordable approach for protecting existing buildings and ensuring occupant safety. This training is typically offered in webinar format, but could be combined with other in-person trainings.

Materials provided for the in-person training include:

- FEMA 395 report, *Incremental Seismic Rehabilitation of School Buildings (K-12): Providing Protection to People and Buildings* (printed copy)

The FEMA 395 report may be downloaded at no cost at the following link: https://www.fema.gov/library/viewRecord.do?id=1980.

A pre-recorded webinar of the FEMA 395 training may be viewed at the following link: https://fema.connectsolutions.com/p13135639/?launcher=false&fcsContent=true&pbMode=n ormal.

FEMA P-50 and FEMA P-50-1, Simplified Seismic Assessment and Retrofit Guidelines of Detached, Single-Family, Wood-Frame Dwellings

(In-Person Training and Live Webinar)

The training on the FEMA P-50 report, *Simplified Seismic Assessment of Detached, Single-Family, Wood-Frame Dwellings*, provides instruction on inspection procedures and use of a four-page Simplified Seismic Assessment Form to evaluate detached single-family wood-framed dwellings and to assign to each a seismic performance grade. The procedure takes into consideration the potential for damage or collapse in a manner that is consistent and useful to owners, purchasers, insurers, lenders, contractors, design professionals, and regulatory officials. The training on the FEMA P-50-1 report, *Seismic Retrofit Guidelines for Single-Family, Wood-Frame Dwellings,* provides specific guidance for retrofitting a dwelling's seismic deficiencies, as identified using the FEMA P-50 procedure. The webinar on FEMA P-50 and FEMA P-50-1 provides an overview of the in-person training.

Materials provided for the in-person training include:

- FEMA P-50 report, *Simplified Seismic Assessment of Detached, Single-Family, Wood-Frame Dwellings* (printed copy)
- FEMA P-50-1 report, *Seismic Retrofit Guidelines for Detached, Single-Family, Wood-Frame Dwellings* (printed copy)

FEMA P-58, Seismic Performance Assessment of Buildings
(Live Webinar Only)

This webinar series provides an overview of the FEMA P-58, *Seismic Performance Assessment of Buildings* methodology and demonstrates an implementation of the Performance Assessment Calculation Tool (PACT) that was developed under the ATC-58-1 project. Both webinars in the series must be attended in order to obtain a Certificate of Participation.

The following materials will be provided for download:

- Webinar presentation slides (PDF format)
- Electronic copies of: (1) FEMA P-58-1, *Seismic Performance Assessment of Buildings, Volume 1 – Methodology*; and (2) FEMA P-58-2, *Seismic Performance Assessment of Buildings Volume 2 – Implementation Guide*

The FEMA P-58-1 and FEMA P-58-2 reports may be downloaded at no cost at the following link: http://www.fema.gov/media-library/assets/documents/90380.

FEMA P-154, Rapid Visual Screening of Buildings for Potential Seismic Hazards
(In-Person Training)

In this training, participants learn how to identify potentially hazardous buildings before earthquakes occur, according to the methodology set forth in the Third Edition of FEMA P-154, *Rapid Visual Screening of Buildings for Potential Seismic Hazards*. The training covers methods and processes that enable personnel to rapidly screen buildings for their expected safety and usability during and after earthquakes. Local officials can use these data to plan and prioritize further engineering and vulnerability analysis, emergency-response needs, and mitigation projects. The Third Edition document was completed on January 2015, and includes an additional level of screening form, as well as many other enhancements.

Materials provided for the in-person training include:

- FEMA P-154 report, *Rapid Visual Screening of Buildings for Potential Seismic Hazards* (Third Edition, printed copy)

- FEMA P-154 CD, which includes the following in electronic format: (1) FEMA P-154 report, *Rapid Visual Screening of Buildings for Potential Seismic Hazards*; and (2) FEMA P-155 report, *Rapid Visual Screening of Buildings for Potential Seismic Hazards: Supporting Documentation*.
- Only upon request: FEMA P-155 report, *Rapid Visual Screening of Buildings for Potential Seismic Hazards: Supporting Documentation* (printed copy)

The FEMA P-154 and FEMA P-155 reports may be downloaded at no cost at the following link: http://www.fema.gov/media-library/assets/documents/15212.

ATC-20, Postearthquake Safety Evaluation of Buildings
(In-Person Training)

In this training, participants learn how to evaluate the safety of buildings following earthquakes. Trainees learn how to perform seismic inspections and safety evaluations of buildings, and to post appropriate safety-status placards. These evaluations and placards can be used in planning and executing evacuation, re-entry, and rebuilding strategies. Under NETAP, ATC-20 training can only be obtained if conducted in conjunction with another FEMA course, such as FEMA P-154.

Materials provided for the in-person training include:

- ATC-20-1, *Field Manual: Postearthquake Safety Evaluation of Buildings* (printed copy)

Additional copies of the ATC-20-1, Field Manual: Postearthquake Safety Evaluation of Buildings may be ordered at the following link (only available in hard copy): http://store.atcouncil.org/index.php?dispatch=products.view&product_id=32.

Rapid Observation of Vulnerability and Estimation of Risk (ROVER)
(In-Person Training)

In this course, participants learn how to utilize *Rapid Observation of Vulnerability and Estimation of Risk* (ROVER). ROVER is open-source software that automates the paper-based screening procedures documented in the Second Edition of FEMA 154, *Rapid Visual Screening of Buildings for Potential Seismic Hazards*, published in 2002. Building-specific data are entered into ROVER in the field via smartphones and other devices that have GPS capability, and are aggregated in a PC-based data server. ROVER includes many productivity-enhancing features, such as automated geolocation, integrated digital photography and sketching capabilities, and automated retrieval of site-specific soil and hazard data from U.S. Geological Survey maps.

Materials provided for the in-person training include:

- ROVER CD, *Rapid Observation of Vulnerability and Estimation of Risk* (ROVER) software

Additional information about ROVER may be downloaded at no cost at the following link: http://roverready.org/.

FEMA P-593, Seismic Rehabilitation Training for One- and Two-Family Wood-Frame Dwellings

(In-Person Training)

The training on FEMA P-593, *Seismic Rehabilitation Training for One- and Two-Family Wood-Frame Dwellings*, promotes seismic retrofitting of one- and two-family homes to reduce earthquake damage and increase postearthquake habitability. Participants are introduced to the effects of earthquakes on wood-frame dwellings, common seismic vulnerabilities in these structures, retrofitting approaches, and available retrofitting guidelines.

Materials provided for the in-person training include:

- FEMA P-593 CD, which includes the slide presentation for *Seismic Rehabilitation Training for One- and Two-Family Wood-Frame Dwellings*

The FEMA P-593 CD files may be downloaded at no cost at the following link: http://www.fema.gov/library/viewRecord.do?id=4554.

FEMA P-646, Guidelines for Design of Structures for Vertical Evacuation from Tsunamis

(Live Webinar Only)

This webinar provides an overview of the design guidance provided in FEMA P-646, *Guidelines for Design of Structures for Vertical Evacuation from Tsunamis*, which includes procedures for siting of a vertical evacuation structure. The webinar also includes an informative session about the first tsunami vertical evacuation structure currently under construction in Washington State.

The following materials will be provided for download:

- Webinar presentation slides (PDF format)
- Electronic copy of the FEMA P-646 report, *Guidelines for Design of Structures for Vertical Evacuation from Tsunamis*

The FEMA P-646 report may be downloaded at no cost at the following link: https://www.fema.gov/media-library/assets/documents/14708.

FEMA P-749, Earthquake-Resistant Design Concepts: An Introduction to the NEHRP Recommended Seismic Provisions for New Buildings and Other Structures

(In-Person Training)

Training on the FEMA P-749 report, *Earthquake-Resistant Design Concepts: An Introduction to the NEHRP Recommended Seismic Provisions for New Buildings and Other Structures* (a companion guide to the 2009 edition of the NEHRP Recommended Seismic Provisions for New Buildings and Other Structures (FEMA P-750)), has been designed to encourage design and construction practices that address earthquake hazard and minimize the resulting risk to life and property. Understanding the basis for the seismic regulations in the nation's building codes and standards is important to those outside the technical community including elected officials, decision-makers in the insurance and financial communities, and individual building or business owners and other concerned citizens. The intent of this training is to provide interested individuals with an easily understandable explanation of the intent and requirements of seismic design in general and the Provisions in particular.

Materials provided for the in-person training include:

- FEMA P-749 report, *Earthquake-Resistant Design Concepts An Introduction to the NEHRP Recommended Seismic Provisions for New Buildings and Other Structures*

The FEMA P-749 report may be downloaded at no cost at the following link: http://www.fema.gov/library/viewRecord.do?id=4711.

FEMA P-767, Earthquake Mitigation for Hospitals

(In-Person Training)

The FEMA P-767, *Earthquake Mitigation for Hospitals*, training introduces participants to earthquake hazards in healthcare settings and methods that can be used to analyze and reduce risks of damage in hospitals and other medical buildings. Such facilities have unique nonstructural components, including equipment and infrastructure systems that can become sources of injury or damage even during smaller earthquakes. By implementing sound, cost-effective mitigation measures, healthcare facilities can reduce seismic risks and ensure that, in the event of an earthquake, they can remain in operation to serve their communities.

Materials provided for the in-person training include:

- FEMA P-767 training PowerPoint presentation report, *Earthquake Mitigation for Hospitals: Training Program and Presentation Slides* (printed copy)
- FEMA 396 report, *Incremental Seismic Rehabilitation of Hospital Buildings* (printed copy)
- FEMA P-767 CD, which includes the following in electronic format: FEMA P-767 training PowerPoint presentation, *Earthquake Mitigation for Hospitals: Training Program and Presentation Slides*
- FEMA E-74 CD, which includes the following in electronic format: FEMA E-74 report, *Reducing the Risks of Nonstructural Earthquake Damage*

The FEMA 396 report may be downloaded at no cost at the following link: http://www.fema.gov/media-library/assets/documents/5167?id=1981.

The FEMA E-74 report may be downloaded at no cost at the following link: https://www.fema.gov/media-library/assets/documents/21405.

FEMA P-807, Seismic Evaluation and Retrofit of Multi-Unit Wood-Frame Buildings with Weak First Stories

(Live Webinar Only)

This webinar provides an overview of the methodology for design provided in FEMA P-807, *Seismic Evaluation and Retrofit of Multi-Unit Wood-Frame Buildings with Weak First Stories*, and a demonstration of the design aid Weak Story Tool (WST) provided with FEMA P-807.

The following materials will be provided for download:

- Webinar presentation slides (PDF format)
- Electronic copy of the FEMA P-807 report, *Seismic Evaluation and Retrofit of Multi-Unit Wood-Frame Buildings with Weak First Stories*

The FEMA P-807 report may be downloaded at no cost at the following link: https://www.fema.gov/media-library/assets/documents/32681.

FEMA P-909, Home and Business Earthquake Safety and Mitigation: A "Train the Trainer" Course

(In-Person Training)

The goal of the training on FEMA P-909, *Home and Business Earthquake Safety: A "Train the Trainer" Course*, is to create a cadre of trainers with the ability to provide citizens with basic knowledge on earthquakes and simple steps toward safety and mitigation in their homes and businesses with the goal to reduce the loss of life and property from an earthquake. This

training includes a demonstration how to mitigate the seismic risk of a component, such as a water heater.

Materials provided for the in-person training include:

- FEMA P-909 CD, which includes the following in electronic format: FEMA P-909 training PowerPoint presentation, *Home and Business Earthquake Safety: A "Train the Trainer" Course*

FEMA P-1019, Emergency Power Systems for Critical Facilities
(Live Webinar Only)

This webinar provides an overview of the FEMA P-1019, *Emergency Power Systems for Critical Facilities*, report that contains guidance on the design and operation of emergency power systems in critical facilities that will be relied upon for extended periods.

The following materials will be provided for download:

- Webinar presentation slides (PDF format)
- Electronic copy of the FEMA P-807 report, *Emergency Power Systems for Critical Facilities: A Best Practices Approach to Improving Reliability*

The FEMA P-1019 report may be downloaded at no cost at the following link: https://www.fema.gov/media-library/assets/documents/101996.

FEMA P-1024, Performance of Buildings and Nonstructural Components in the 2014 South Napa Earthquake, and FEMA South Napa Earthquake Recovery Advisories
(In-Person Training and Live Webinar)

This training gives an overview of the FEMA P-1024, *Performance of Buildings and Nonstructural Components in the 2014 South Napa Earthquake*, report that assesses and documents the performance of a population of buildings impacted by the South Napa earthquake and provides a series of recommendations to improve mitigation. The training also includes an overview of the accompanying FEMA South Napa Earthquake Advisories: (1) FEMA P- 1024/RA1, *South Napa Earthquake Recovery Advisory: Repair of Earthquake-Damaged Masonry Fireplace Chimneys*, which recommends best practices for the reconstruction of earthquake- damaged masonry chimneys in one- and two-family dwellings to minimize risk of damage in future earthquakes; and (2) FEMA P-1024/RA2, *South Napa Earthquake Recovery Advisory: Earthquake Strengthening of Cripple Walls in Wood-Frame Dwellings*, which addresses the earthquake strengthening of cripple walls and foundation anchorage in one- and two-family dwellings supported by elevated concrete foundation systems and cripple walls not taller than approximately seven feet.

Materials provided for the in-person training include:

- FEMA P-1024 report, *Performance of Buildings and Nonstructural Components in the 2014 South Napa Earthquake*, which includes copies of FEMA P-1024/RA1, *South Napa Earthquake Recovery Advisory: Repair of Earthquake-Damaged Masonry Fireplace Chimneys*, and FEMA P-1024/RA2, *South Napa Earthquake Recovery Advisory: Earthquake Strengthening of Cripple Walls in Wood-Frame Dwellings* (printed copy)

The FEMA P-1024 report and FEMA South Napa Recovery Advisories may be downloaded at no cost at the following link: https://www.fema.gov/media-library/assets/documents/103966.

OTHER FEMA EARTHQUAKE-RELATED PUBLICATIONS AND RESOURCES

FEMA also provides an Independent Study Program. A complete list of courses is available at the following link: http://training.fema.gov/IS/crslist.aspx?all=true.

Training materials sought for independent study can be obtained free of charge through the online FEMA Library unless otherwise indicated within the training listings. The FEMA Library website is available at the following link: http://www.fema.gov/building-science-publications/building-science-publications-seismic.